

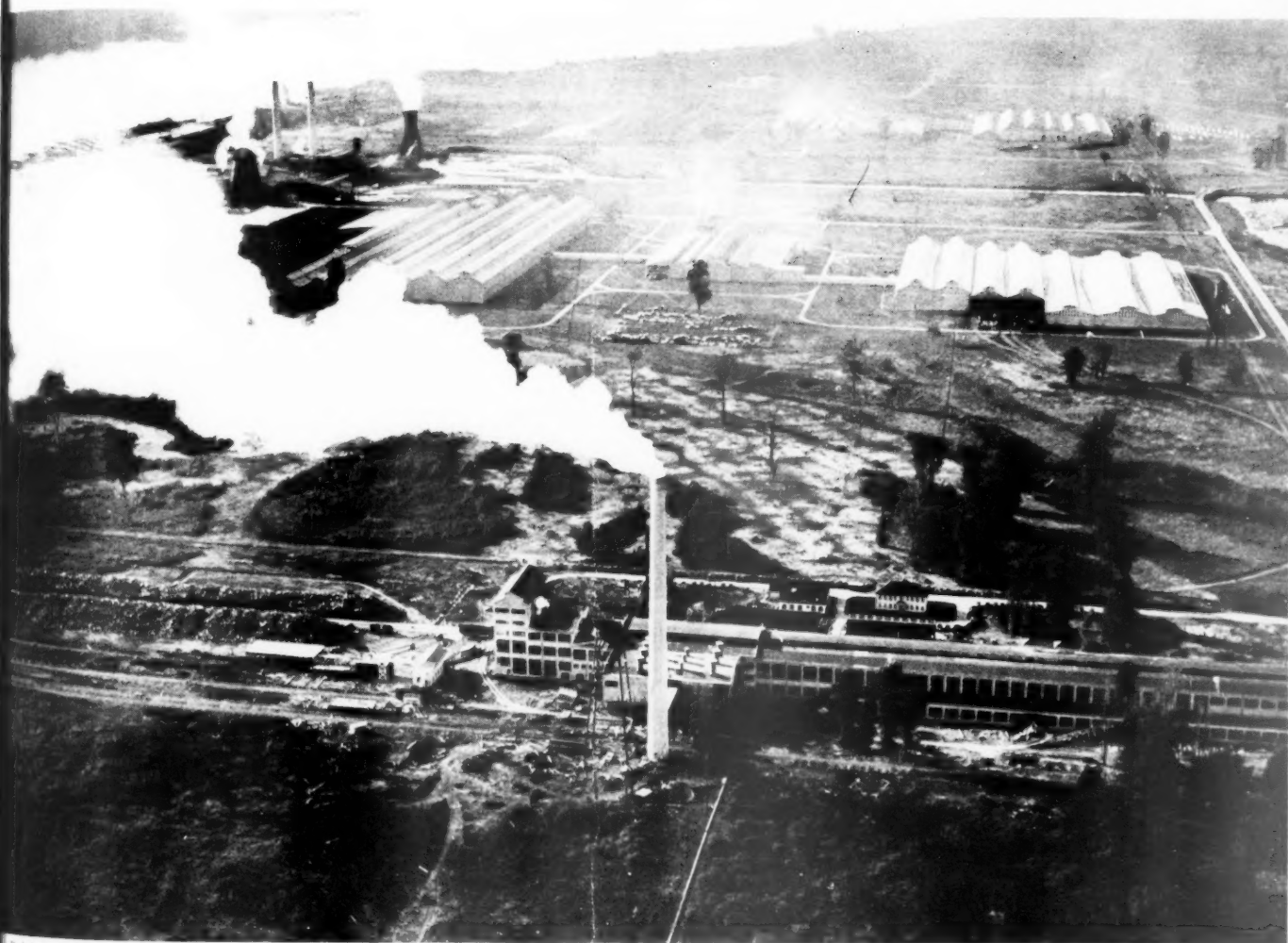
PACIFIC PULP *and* PAPER INDUSTRY

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Volume 1
Number 11

DECEMBER, 1927

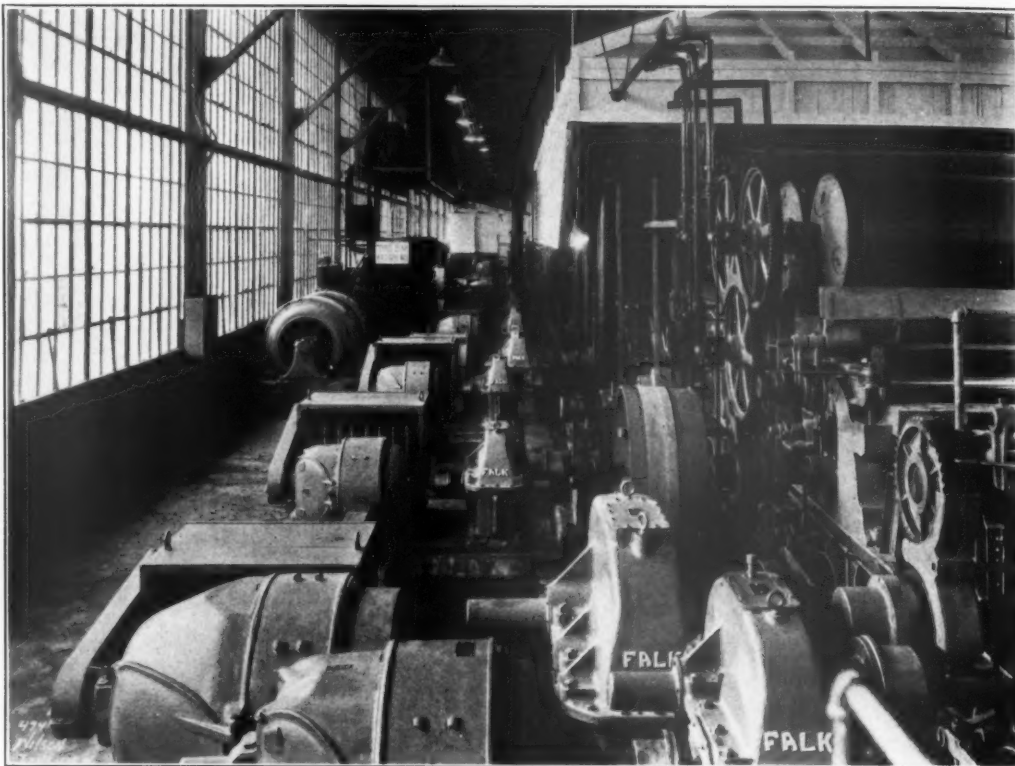
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Robber Aerial Surveys, Portland, Ore.

LONGVIEW, WASHINGTON

The Longview Fibre Company's New Sulphate Mill is pulping Douglas fir obtained from the adjoining huge lumber mill



FALK

HERRINGBONE GEAR SPEED REDUCERS AND FLEXIBLE COUPLINGS ON SECTIONAL DRIVE TO VERTICAL DRYER
IN THE NEW MILL OF THE LONGVIEW FIBRE CO.

Falk Reducers and Couplings are particularly suitable for—

Sectional Drives	Vacuum Pumps	Conveyors
Agitators	Vignating Screens	Elevators, Etc.

There is no drive that is so durable, quiet and efficient.
 Carried in stock for immediate shipment.

The FALK CORPORATION, Milwaukee, Wis.

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**THE BELOIT PATENTED HIGH
SPEED SHAKE**

Combined With

**THE BELOIT PATENTED UNIT
REMOVABLE FOURDRINIER**

READ THESE FACTS—

1. SHAKES TWICE AS FAST AND HAS
2. LESS THAN $\frac{1}{2}$ THE WEIGHT OF OLDER MODELS
3. SHAKE IS ADJUSTABLE FOR SPEED AND LENGTH OF STROKE WHILE RUNNING
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Mill and Container Plant Machinery

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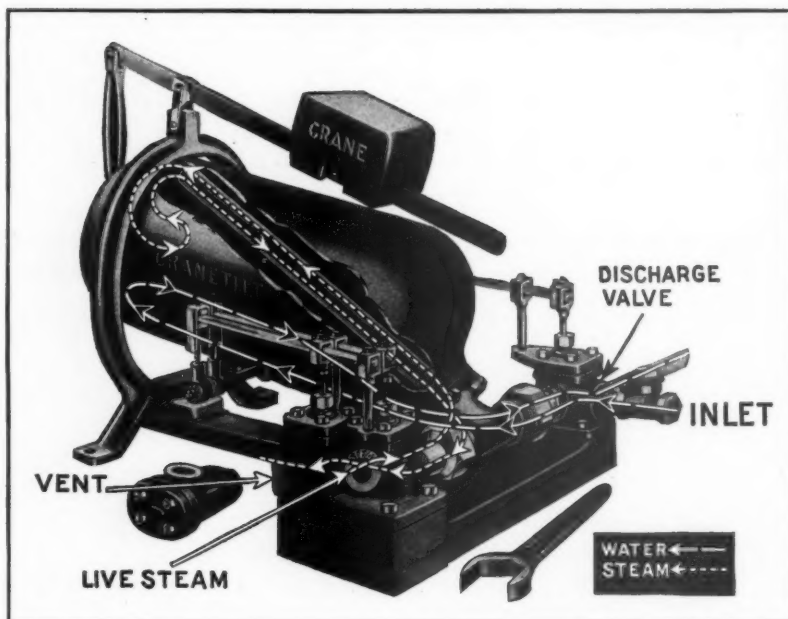
180 Pounds Pressure



CRANE VALVES



2500 Pounds Pressure



Crane tilt three-valve lifting steam traps are made in a number of sizes

For lifting, for varying pressures, for metering

Having the merits of visible action, accessibility of all working parts, and simple operation, the three-valve lifting trap is designed to take care of the most difficult condensation problems.

1. It lifts condensation from a low point to a higher.
2. It handles condensation from a pressure line or a vacuum line.
3. It pumps from lines which vary in pressure above or below atmospheric.
4. It drains an oil separator.

5. It drains a feed water heating system using varying pressures of exhaust.
6. It drains a heating system using exhaust or live steam alternately.
7. It meters condensation, if necessary.

Meeting a wide range of conditions, the Crane tilt three-valve trap, properly installed, gives invariably satisfactory service.

Send Crane engineers a description and diagram of the troublesome condensation condition in your plant. The possibilities are that the three-valve trap will meet it.

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To serve Industry still better



Extra Years of Service

Morse Silent Chain Drives always have been noted for their dependability and long life. Many installed 15 and 20 years ago, are still operating satisfactorily.

The Morse Chain Company now announce refinements in the design of chain—the new design is known as No. 55 type.

This new design provides a better balanced joint, which has materially reduced the wear, and this means added chain life.

Now, with the new and improved Morse Rocker Joint, extra years of service are added to Morse Chains. Changes in the contour of the rocker pin and an increase in cross section of seat pin have made a joint, more rugged and sturdy, 8% heavier, and with an increase of 50% in breaking strength.

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In Recognition of Morse Quality
The high quality of Morse Drives is again recognized by this Gold Medal, awarded at the Sesqui-Centennial Exposition at Philadelphia.

1981R

MORSE SILENT CHAIN DRIVES

TIMKEN *Tapered* Roller BEARINGS

The Most Enduring Motor Economy Ever Known

For any electric motors now ordered, and in any orders to be placed, specify Timken Tapered Roller Bearings. Motor manufacturers can build in for you the permanent economy and endurance of Timken Tapered Roller Bearings.

It means far more than the accepted anti-friction advantages!

Gone are the wear and waste of friction, not merely under radial load, but also under thrust and shock and speed conditions of every nature. For all forces from all directions there is self-contained extra load area in Timken Bearings—utmost rigidity—extreme simplicity and compactness—invincible endurance.

Lubricate Timken-equipped motors only a few times yearly. Their high-capacity, steel-to-steel, rolling motion maintains the original gap. No worry about burn-outs. Fast, non-destructive starting. No dripping. Overheating and insurance hazards ended. No alteration for floor, wall or ceiling position on any type of drive!

All industry knows these characteristic Timken economies. Timkens have been proved not only in motors, but by the terrific load, shock and thrust in rolling mills; by the precision requirements of machine tool spindles; by speeds of 15,000 r.p.m.

Exactly where electric motors have been weakest you get the greatest durability, by specifying Timken Tapered Roller Bearings in the motors you buy.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO

THERE IS ONLY ONE WAY TO THE MOST ENDURING MOTOR ECONOMY EVER KNOWN—THE EXCLUSIVE COMBINATION OF TIMKEN POSITIVELY ALIGNED ROLLS, TIMKEN TAPERED CONSTRUCTION, AND TIMKEN-MADE ELECTRIC FURNACE STEEL



In One Year—Two Vertical Dryer Installations on the Pacific Coast

OUT on the Pacific Coast where paper and pulp making is one of the newer industries, and entire mills are being equipped at one time, it is significant that many of them are using Vertical Dryers.

The above photograph is that of the finishing end of the Vertical Dryer Section in the Longview Fibre Company's new mill. In this particular installation the wet sheet goes from the press part to a Vertical Dryer Section located in the basement and finishes on the double deck section in the foreground. You will notice that these double deck dryers are located above the floor to eliminate a pit. Notice, too, that all the dryers,

of which there are 101, are equipped with Sheahan Carriers.

This is the second Vertical Dryer installation to start on the Pacific Coast this year. In addition, two more, now being erected on our floor, will be shipped shortly after the first of the year.

More and more, mills are finding that it is only in Vertical Dryers that they get the efficient drying, the improved appearance of the sheet, the low cost of operation, and the saving in steam and overhead that aggressive modern competition demands.

You should hear the whole story. Why not let us tell it to you?

The Black-Clawson Company

HAMILTON, OHIO

Established 1873

Export Offices: 15 Park Row, New York City

*Builders of Highest Quality Pulp and Paper Mill Machinery
Patentees and Sole Builders of Vertical Dryers and Champion Fourdriniers*

BLACK-CLAWSON

VERTICAL



DRYERS

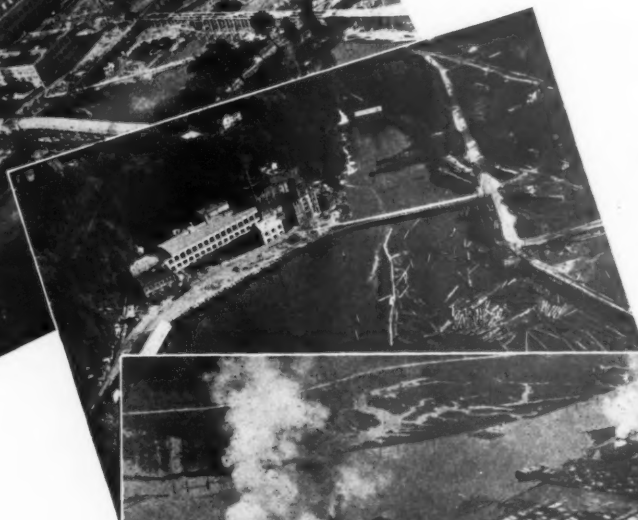
Built with Machine-Tool Accuracy

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St. Helens Pulp & Paper Co.
St. Helens, Oregon



Tumwater
Paper Mills Co.
Tumwater,
Wash.



Shaffer
Box Company
Tacoma, Wash.



Constructive Development

WE PROVIDE CAPITAL FOR BUSINESS EXPANSION

—Specializing in Pulp and Paper Mills—

Experience teaches us that full co-operation and support are brought about by a close business relationship between the corporation and those from whom it seeks capital.

From our years of experience we are persuaded to believe that our selling methods are such as to bring about the above results. This is evidenced by the part our organization played in financing the two above pictured mills.

We are now financing a 50-ton pulp mill to be operated in connection with the Shaffer Box Co. and consider this one of the best combinations on the Coast.

Only meritorious deals considered

TOM G. TAYLOR CO.

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Portland, Oregon

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TACOMA, WASH.

Dexter Horton Building
Seattle

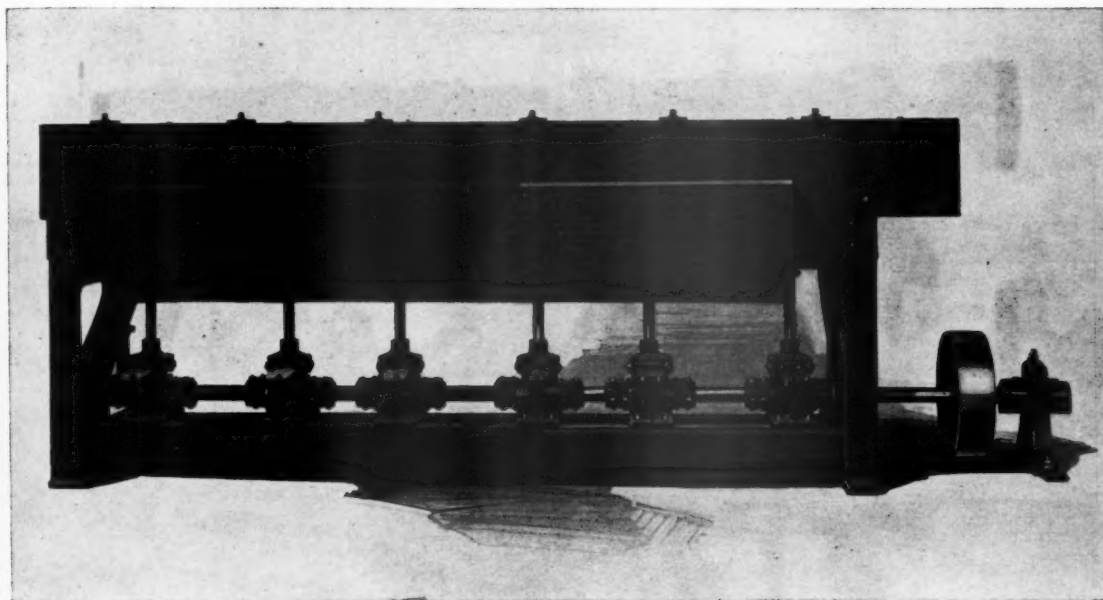
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The Inclined Harmon Screen is Manufactured Exclusively by the
Bagley and Sewall Company

LEVEL AND INCLINED TYPES *of* HARMON SCREENS

Maximum Capacity — Clean Stock — Less Power



View of Flat Type Screen

We are prepared to give service on orders received for these screens
and can make prompt deliveries on screens and parts.

— Bulletins on Request —

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WATERTOWN — NEW YORK
1823 — 1927

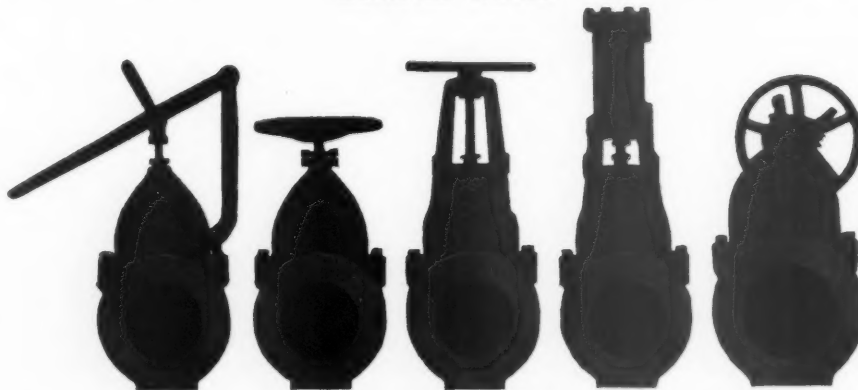
Record Quick Acting Stock and Water Valves



BONNETLESS VALVES



IMPROVED VALVES



STANDARD VALVES

"RECORD BONNETLESS" VALVES—PATENTED in U. S. A. and Canada.

Cut illustrates valves fitted for RACK, SCREW, and CYLINDER OPERATION. All VALVES may be furnished with RE-NEWABLE SEATS of iron or bronze.

Furnished in sizes to 60". Electric control can be furnished larger sizes.

"RECORD IMPROVED" VALVES—PATENTED in U. S. A. and Canada.

Cuts show the valves as operated by Lever, Screw, Rack, and Cylinder. VALVES provided with BONNET and BOTTOM CLEAN-OUTS. May be furnished with RENEWABLE SEATS.

"A NEW VALVE IN 15 MINUTES."

Manufactured in sizes to 48". Electric control can be furnished larger sizes.

"RECORD STANDARD" VALVES.

"The General Service Valve."

Lever, screw, rack or cylinder operated.

Furnished with flush or wedge locked gates, and in sizes to 48".

Electric control can be furnished larger sizes.

Record Valves are furnished of Iron, Bronze or of Acid Resisting Metal

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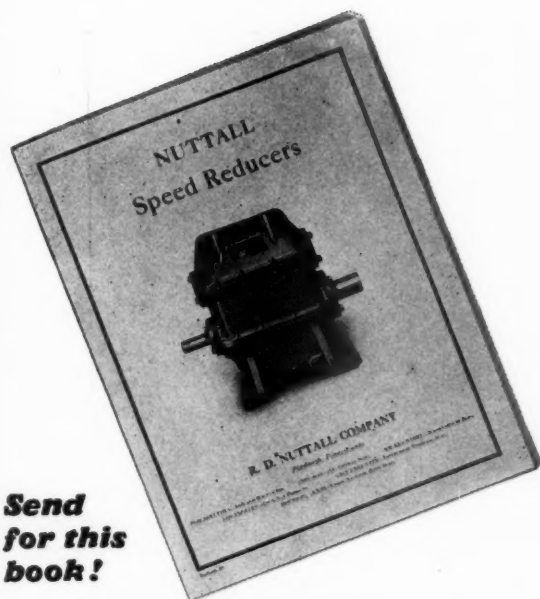
Hajoca Corporation, 30th St. below Chestnut, Philadelphia, Pa.

E. K. Mansfield & Co., 501 Fifth Ave., New York, N. Y.

*A complete line of Record Valves are carried in stock
by A. H. Cox & Co.*

When writing to RECORD FOUNDRY & MACHINE CO. please mention PACIFIC PULP & PAPER INDUSTRY

A Two-Fisted Speed Reducer



That's what Nuttall speed reducers are—two-fisted. They can hold their own on any job. They are built with a sturdy simplicity which guarantees their continuous operation even in the most strenuous services. That is why production men in all types of industry are placing them on the vital drives, the ones that must be kept going.

Strength and stamina are designed and built into every part of these reducers.

The helical gears are cut with the strong long and short addendum tooth form from forged steel blanks, and they are heat treated and hardened to give them maximum strength and wear life.

The Timken roller bearings used throughout these reducers insure bearing dependability, and are of ample capacity to carry all loads that may be thrown on them.

The case is cast in three sections from close-grained grey iron. The case walls are not only generously proportioned but are reinforced by rib sections and the gears and shafts are held in positive alignment even under the greatest stresses.

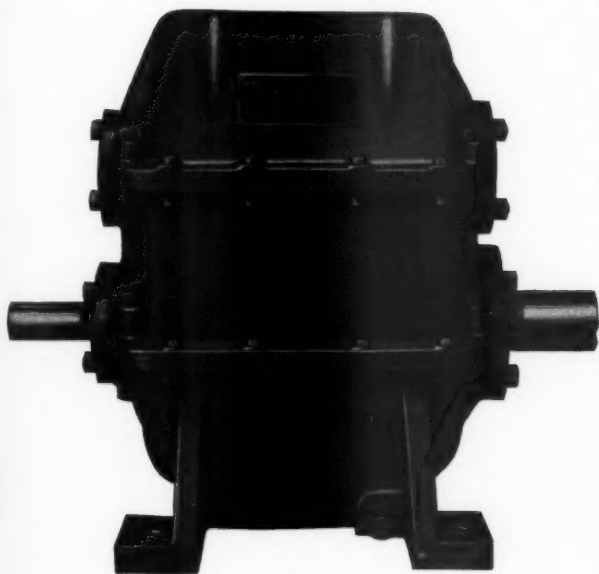
The splash lubrication system is positive and efficient and the reducer requires no attention beyond the occasional addition of oil to the case.

Send for Our Speed Reducer Bulletin

R. D. Nuttall Co., Pittsburgh, Pa.

Philadelphia — Chicago — Houston — Los Angeles

In Canada, Lyman Tube & Supply Co., Montreal, Toronto



Nuttall

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Both Ends and the Middle

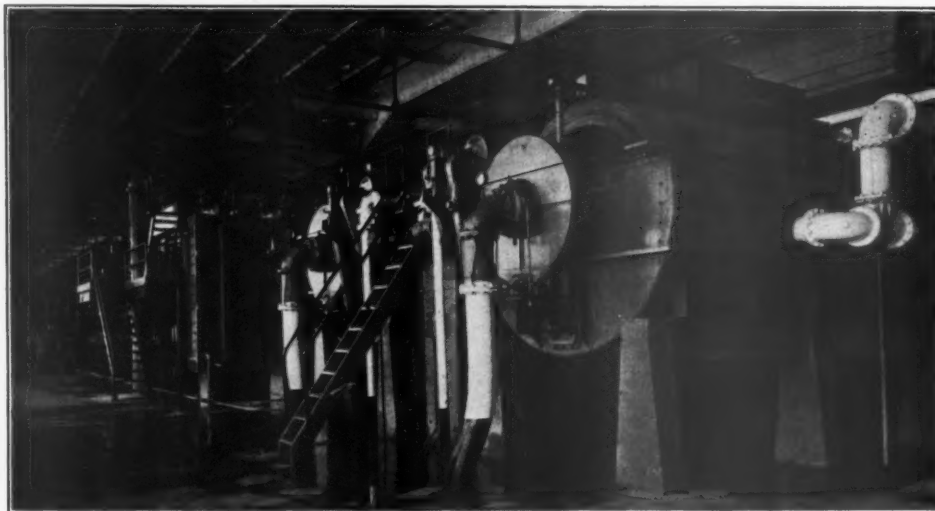


Photo by J. D. Cress, Seattle, Wash.

OLIVER Save-Alls in the Middle Save on Both Ends!

On the "incoming" end, a book stock mill had to cancel clay orders because their OLIVER "caught" so much clay that the warehouse overflowed.

On the "outgoing" end, the OLIVER collected all fibre in White Water except 0.28 pounds per 1,000 gallons and saved water too.

Every mill has "both ends", why not put an OLIVER in the "middle" to do some saving?

Oliver Continuous Filter Co.

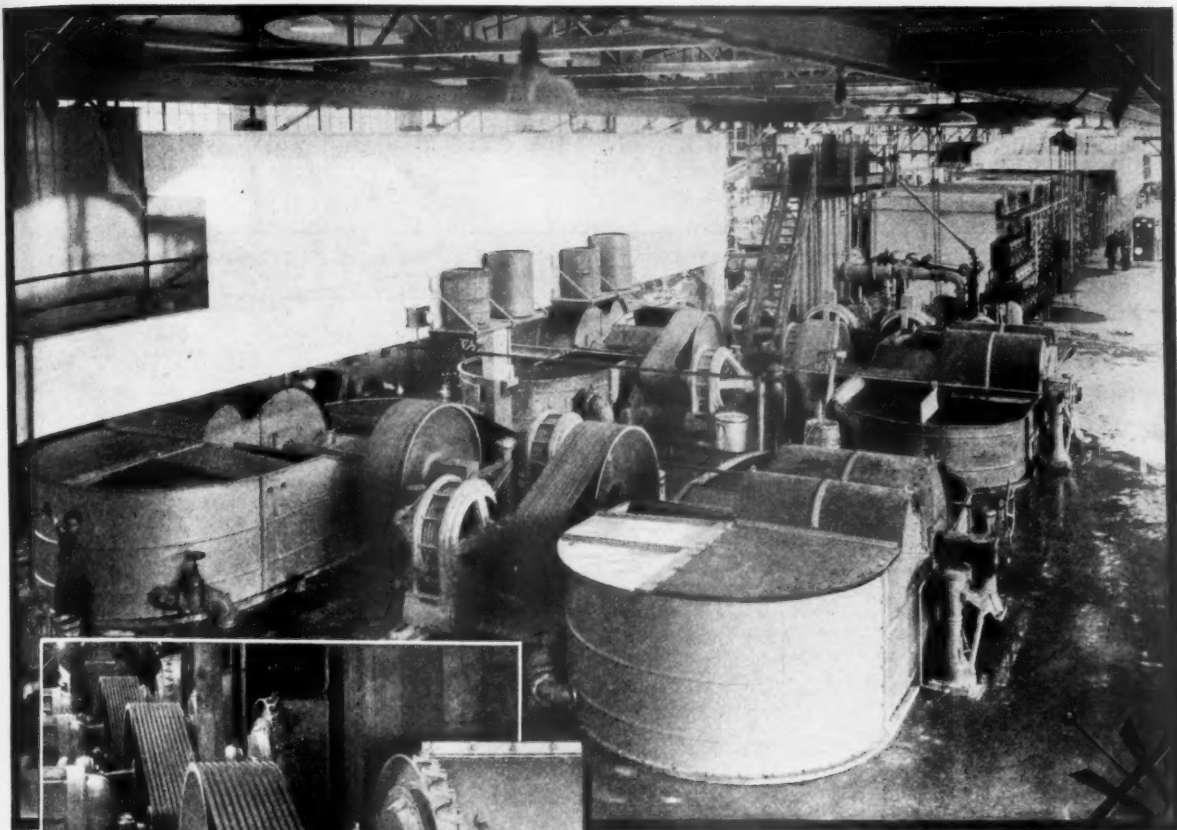
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Oakland, Calif.
4th and Madison Sts.

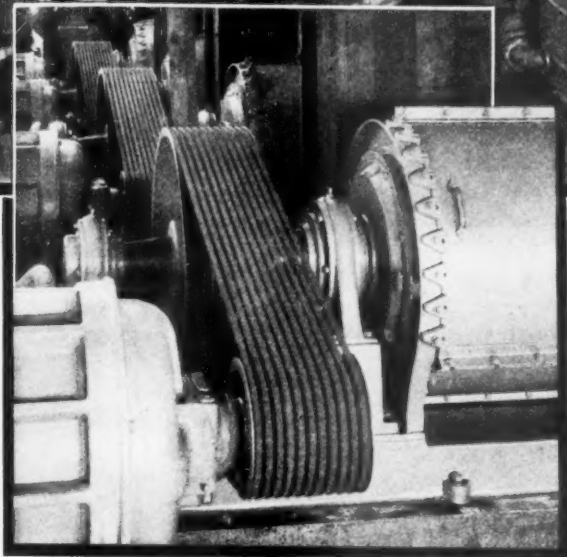
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E. L. Bateman, Locarno House

London
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150 H.P. Beater Drives



75 H.P. Byrd Screen Drives.

ALLIS-CHALMERS TEXROPE DRIVES

have made possible a tremendous saving in floor space. Fifty-two installations in the new plant of

Longview Fibre Co., Longview, Wash.

They are contributing their share toward low manufacturing costs, due to the high efficiency, low maintenance and shock absorbing qualities for which Texrope Drives have been so universally adopted in the pulp and paper industry.

Write for Bulletin 2092 featuring Texrope Drives in the pulp and paper industry

ALLIS-CHALMERS MANUFACTURING CO., MILWAUKEE, WIS.

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525 Symes Bldg., Denver
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505 Lumbermen's Bldg., Portland
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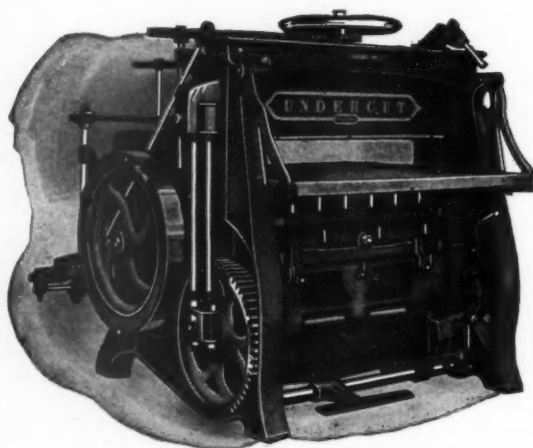
When writing to ALLIS-CHALMERS MFG. CO. please mention PACIFIC PULP & PAPER INDUSTRY

PAPER MILL MACHINERY

JORDAN ENGINES—PUMPS—"RAINSTORM" SHOWER PIPES

The Undercut Trimmer

The AUTOMATIC PAPER CUTTING MACHINE, designed for PAPER MILL SERVICE, is of rugged and compact design, of great strength yet with simplicity on which you can with accuracy, quickly handle and cut any grade of paper or cardboard.



The AUTOMATIC CLAMP is governed in the pressure put upon the stock by the resistance to the knife in cutting through the stock. The tougher the stock, the greater the pressure will be upon it. The pile to be cut will automatically have the proper pressure put upon it, regardless of its height or width.

The BACK GAUGE has a face which is finished absolutely square to the side gauges, and is also parallel to the knife, regardless of its distance from the knife. The standard back gauge is in one piece. A triplicate back gauge can be furnished whereby three piles may be trimmed to different dimensions at each stroke of the knife.

THE POWER BACK GAUGE is furnished as regular equipment on all machines from 56" and up. It can be supplied on power machines smaller than 56". This is a device for quickly moving the back gauge back and forth by power. The control lever is conveniently located on the front of the machine and within easy reach of the operator. For making accurate adjustment a nickel plated hand-wheel is provided, which is located on the top of the cutter.

THE STARTING DEVICE on the UNDERCUT adds greatly to the safety of operation, in that it positively insures against accidental starting of the machine. On most cutters, the machine can be started by moving the starting handle in one direction, while on the UNDERCUT two separate movements in different directions are required.

PAPER BAG MAKING MACHINERY

—Established 1828—

The Smith & Winchester Mfg. Co.

Dept. MFP.

SOUTH WINDHAM, CONN.

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BIRD MACHINERY

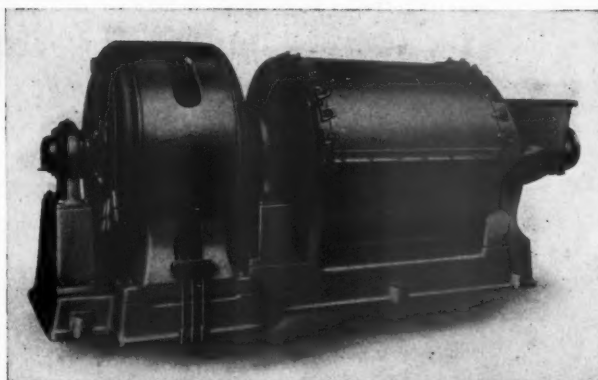
Consider Its Tremendous Capacity When Laying Out Your Screen Room

In planning new mills, the tremendous capacity and the pumping action of Bird Pulp Screens have saved some pulp makers thousands of dollars in building construction, power and equipment.

Ask us to show you what the Bird Pulp Screen means to your screen room layout and what it can save you in power and maintenance expense.

Bird Machine Company

South Walpole, Massachusetts



The Bird Pulp Screen

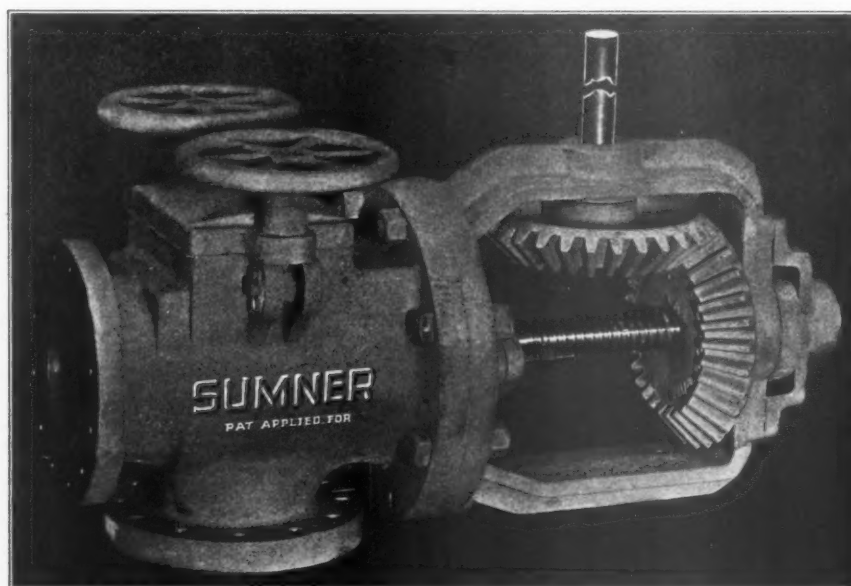
As good for
pulp as the
Bird Screen is
for paper

SUMNER

IMPROVED DIGESTER VALVE

For Use in Soda Process Pulp Mills
Does Not Leak and Spoil the Cooking Process

Now Adopted as Standard at the
EVERETT PULP and PAPER COMPANY, Everett, Washington



We Also Build:

Chippers
Shaker Screens
Rechippers
Single Press Wet Machines
Double Press Wet Machines

Vats and Screens or Mould Rolls
Pulp Grinders
Stock Valves
Reduction Drives
Transmission Machinery, etc.

Let us figure on your requirements

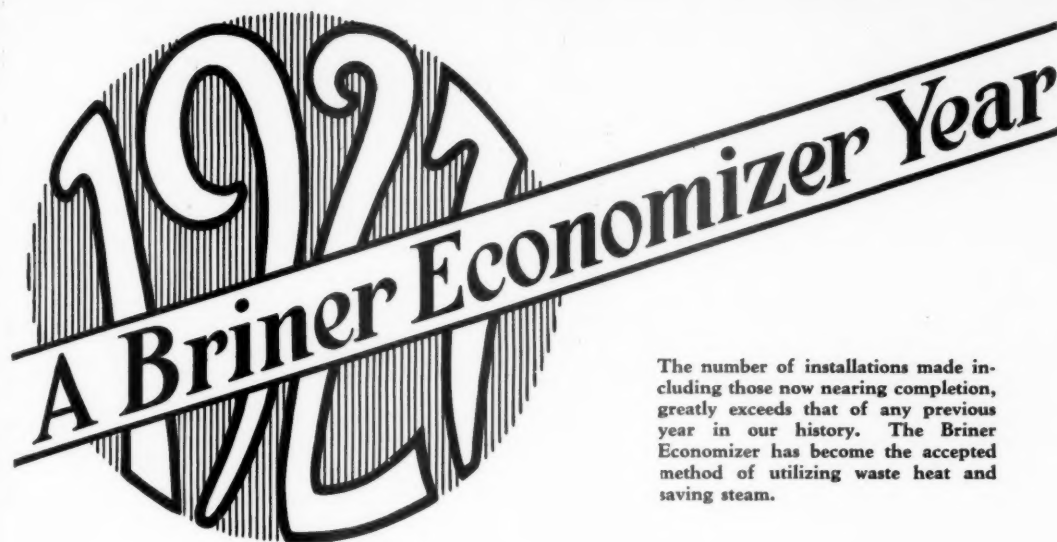
SUMNER IRON WORKS

Factory: EVERETT, WASH.

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TACOMA — Sales Offices — EVERETT

When writing to SUMNER IRON WORKS please mention PACIFIC PULP & PAPER INDUSTRY



A Briner Economizer Year

The number of installations made including those now nearing completion, greatly exceeds that of any previous year in our history. The Briner Economizer has become the accepted method of utilizing waste heat and saving steam.

Plans for 1928 Installation now being made for progressive mills-- *everywhere*

ORDERS for installations early in 1928 are coming in from all sections of the industry in United States and Canada. These orders are for new mills being planned: new additions to mills previously equipped: and installations to equip mills now handicapped with excessive steam costs. The industry wide endorsement of leading mill managers and engineers has made Briner Economizers standard equipment for every mill seeking efficient production. Consult us regarding requirements for your mill.

J. O. ROSS ENGINEERING CORPORATION

208 W. Washington Street
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Main Office
30 E. 42nd STREET, NEW YORK

117 Tacoma Avenue
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ROSS SYSTEMS

HEATING—VENTILATING—DRYING

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Woodpulp Agents

We act as sales agents and distributors for the entire output of Sulphite and Kraft Producing Mills.

Paper Distributors

Mill agents and dealers for the distribution of all classes of paper in the Eastern markets.

BULKLEY, DUNTON & COMPANY

75-77 DUANE STREET

NEW YORK

When writing to BULKLEY-DUNTON & Co. please mention PACIFIC PULP & PAPER INDUSTRY

Pacific Pulp and Paper Industry

Devoted to the Paper Manufacturing Industries of the Western States, Alaska and British Columbia

Published on the 15th of each title month of issue. Subscription, by the year, U. S. and Canada, \$4.00; other countries, \$5.00. Single copies, 35 cents. Office: 71 Columbia St., Seattle, Wash. Copyright, 1927, by Miller Freeman.

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Vol. 1

DECEMBER, 1927

No. 11

One More

Articles of incorporation for the Oregon-Canadian Pulp & Paper Co. were filed at Portland, Ore., on December 5. The incorporators are E. F. O'Flynn, L. L. Koeper and Roy Ames. Capitalization is given at \$25,000.

Principals refused to discuss the organization when asked for a statement of plans. Mr. O'Flynn is president and general manager of the General Bond & Mortgage Co., 1210 Yeon Building, Portland, and Mr. Ames is associated with the same organization. The identity of Mr. Koeper was not disclosed.

"Our plans are being matured rapidly, but it will be perhaps thirty days before we are ready to make public the details concerning our organization," Mr. O'Flynn stated when asked for a statement.

Union Bag Construction To Start

"We certainly hope to be driving piles by Christmas."

In that sentence Mr. C. R. McMillen, president of the Union Bag & Paper Power Corporation, expressed the intention of his company to push construction on their \$2,000,000 sulphate pulp mill at Tacoma, Washington.

Mr. McMillen was in Tacoma for several days early in December, making final preparations for the beginning of construction. With him was Hardy K. Ferguson, consulting engineer; E. B. Murray, vice-president in charge of manufacturing; W. W. Griffith, who is to be resident manager of the new plant, and "Bud" Wood, who will be in charge of construction and act as resident engineer upon completion of the mill.

Both Mr. Wood and Mr. Griffith have arrived in Tacoma, to make their permanent residences there. Mr. McMillen returned to New York the second week in December.

Plans for the mill are far enough advanced to warrant beginning construction at once, Mr. McMillen de-

clared, and once started the work will be pushed as rapidly as weather and other conditions permit. Some of the equipment is already ordered. The December visit to Tacoma was for the purpose of going over the ground finally, as well as to check up on certain legal and technical details. Pile drivers will be at work on the site by Christmas time, Mr. McMillen said.

"The normal time of construction for a mill of this character is about one year," but we hope to beat that time, and may be in to production before the year is over. We are building on a permanent basis and will construct a mill of the most modern type."

At the same time the St. Paul & Tacoma Lumber Co., with which company the Union Bag interests are tying in with the pulp mill, will begin construction on their 150,000-foot capacity hemlock mill early in the year. About 90 days will be required to complete the lumber mill, according to Maj. Everett Griggs, general manager of the St. Paul & Tacoma Lumber Co. Orders have already been placed for electrical equipment for the lumber mill.

Hawley Acquires More Land

The Hawley mill extensions at Oregon City are going ahead at what seems a record pace. The electrically driven pulp mill, occupying the site of the P. E. P. freight depot, is complete and major attention of the general contractors is now focused on the housing of the new 234-inch Beloit machine. This machine is to occupy the location of the old 165-inch machine, which made paper as late as October 10, 1927.

Since then the 165-inch machine has been removed, the building housing it torn down, the new building well advanced, much of the auxiliary machinery of the new machine in place. Mr. E. F. Vesper of the Beloit Iron Works is superintending the installation of the new machine.

With a view to further extensions, the Hawley Co. has just acquired another piece of valuable main street property, the complete property of the Oregon City Foundry, together with the Pope building. This is three quarters of a block of the best industrial property in Oregon City.



Douglas Fir Waste From the Adjoining Lumber Mill Is Now Being Made Into Kraft Board

The New Mill at Longview

The Longview Fibre Company's Plant Is One of the Pacific Coast's Outstanding Developments



THE new \$3,000,000 kraft mill of the Longview Fibre Company at Longview, Washington, blew its first digester on October 3, 1927, nine months after the first piling was driven. In several respects this mill is an outstanding Pacific Coast development. It marks the high type of present day pulp and paper engineering. It was constructed in record time. It is designed to pulp Douglas fir waste wood exclusively. And, conceived and brought to realization principally by men connected with the Thilmany Pulp and Paper Company of Kaukana, Wisconsin, it marks the entry of Eastern pulp and paper capital and

talent into the Pacific Coast field.

The Longview Fibre Company officials set out several reasons for locating the new mill at Longview. Chief among these is the advantage of being situated on a site which adjoins the largest lumber mill in the world—that of the Long-Bell Lumber Company, cutting 1,800,000 feet per day—nearly all Douglas fir. The fibre mill obtains all of its wood from the Long-Bell mill. In addition to the waste wood for pulp purposes, the fibre mill is drawing hog fuel from the lumber mill for its steam requirements, and is securing some of its power from the big generating station located at the lumber mill—a generating station which burns hog fuel.

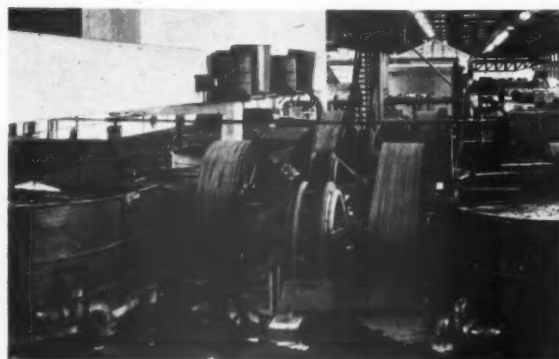
The Long-Bell Company owns billions of feet of Douglas fir and has been built on a permanent basis to operate over a long period of years, perhaps on such a scale as never attempted by any other lumber mill. This situation, with favorable long time contracts for

cheap wood, forms the primary reason for locating the pulp mill at Longview. Other advantages enjoyed by the Longview fibre mill are deep sea shipping to its doors, adequate rail service connecting with main line roads, and plentiful and accessible water supply.

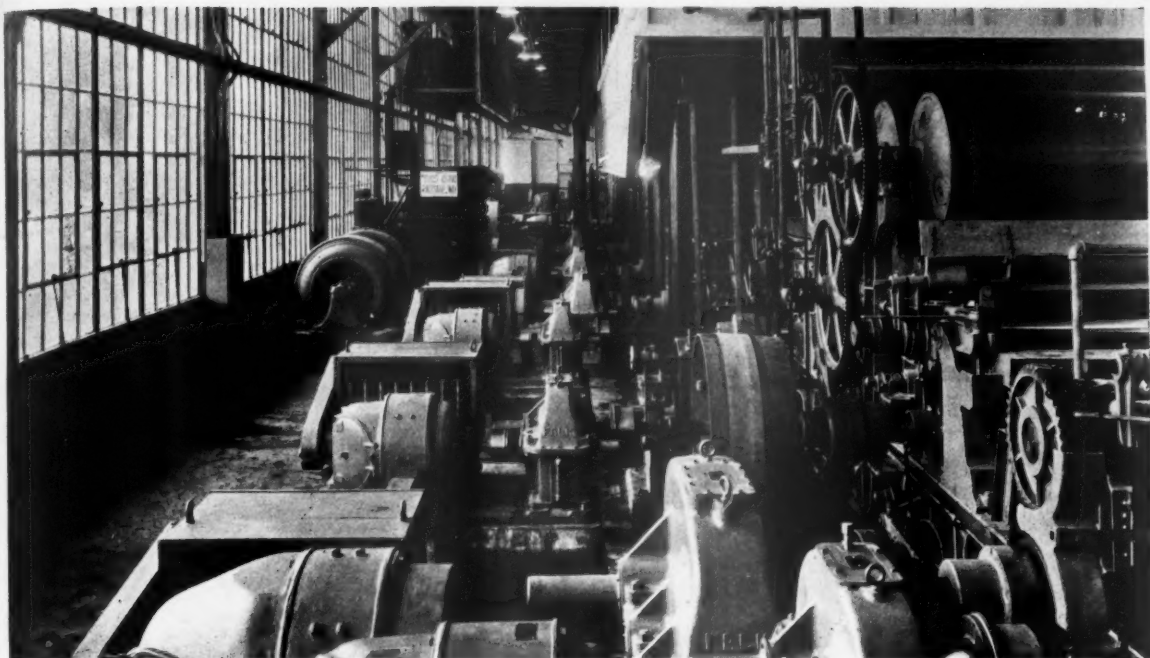
The 180-acre site of the mill is perfectly level, a deep sand and gravel formation at the confluence of the Columbia and the Cowlitz rivers, 50 miles below Portland, Oregon, or approximately half way between that city and the open sea.

The record construction time of the mill was largely due to the foresight of the engineering staff under Chief Engineer Charles R. Seaborne in planning the operations. Instead of building the auxiliary buildings and roads last, as is quite often the practice on construction jobs, at the Longview operations the first work done was the building of a permanent concrete highway from the main road into the mill property and the construction of the wood frame office and auxiliary storage buildings.

By building the road first it was possible for the trucks bringing in building supplies and equipment to operate at full speed, and for the mill to receive the



Texrope Drives Save Space in Beater Installation



Falk Reduction Gears and General Electric Sectionalized Drives Are Used on the Board Machine

benefit of the road at a time when traffic was heaviest. Putting up the office, which had to be built anyway, gave the engineering staff comfortable quarters to work in; the storage and repair shops gave coverage and protection to incoming supplies. This practice of erecting the auxiliary buildings first reduced the temporary buildings cost to a very low figure.

Another construction feature was the operation of their own concrete mixing plant. An incline allowed trucks to back up and dump their loads of sand and gravel into hoppers. Cement came right to the mixer on a railway spur. Not a shovel was used in the mixing operations. One man only was necessary to handle the chutes and doors on the sand and gravel bins. The concrete was distributed by means of a central tower, secondary towers being erected to pour at the more distant points, with dump trucks serving these towers from the central mixer. The concrete plant was designed by Mr. W. E. Dodge, now chief engineer of the Longview Fibre Co.

Unit Type Building

The auxiliary buildings were built on spread footings, but all of the main unit of the mill is on piling. The main building is 1000 feet long, a unit type of building, housing everything from digesters to storage pit at the end of the machine room. The building is 90 feet wide throughout most of its length, with the exception of the combined recovery and boiler room which is 180 feet wide. Reinforced concrete construction is used throughout, with an abundant use of steel sash. The only deviation from the construction is found in the upper portion of the digester house, where, above the second story level, it was found more practical to use a corrugated asbestos board that afforded a lighter construction and also provided walls that are resistant to corrosion.

The mill is served by rail spurs from the Long-Bell Lumber Company. Specially designed cars with capacities of 4000 cubic feet each have been built to carry

hog fuel and chips. These cars have flat floors, and wide high doors that make the entire side of the car easily accessible, requiring few men to do a quicker job of unloading.

Two 83-inch disc chippers of Swedish manufacture have been installed at the lumber mill. These are fitted with pressure feed attachments that permit even feeding of the miscellaneous sized wood. These feed directly into the special chip cars which are switched to the pulp mill. A spur at the mill serves a small stock pile of waste wood, the wood being handled by a locomotive crane. A Smith and Valley horizontal steam splitter is installed at the pulp mill in line with a 110-inch chipper, of the same type as the others but without the pressure feed attachment. Chips from the 110-inch chipper and the incoming cars are fed by belt conveyor directly to the screen room which houses a battery of five vibrating screens, each capable of screening five cords per hour. A chip crusher refines the oversized chips, which are again re-screened and used as chips.

Refined chips move from the screen room by conveyor to a conventional type chip bin of 250 unit capacity above the digesters. The digester house contains four hammer welded Blaw-Knox digesters equipped



A New Type of Chip Car Has Been Designed



The Longview Fibre Company Adjoins This Huge Lumber Mill, Occupying the Ground in the Upper Right Corner. This View, Taken a Year Ago, Emphasizes the Speed That Was Made in Construction

with Morterude circulating pumps. All of the controls for cooking are located on the top floor of the digester house with the exception of the blow-off valves. Chemical control is also maintained from this upper level. Pumps used in connection with the digesters are all centralized on the ground floor. Five steel liquor storage tanks are mounted, on both sides of the digesters, making in all a very compact arrangement.

Fourteen riveted diffusers, installed in rings of seven each, with a central circular concrete stock chest for each ring, take care of the pulp washing. Swing pipes for each ring are connected with the digester blow lines. Propellor type agitators are used in the stock chests, with Hayton centrifugal pumps installed to deliver the stock to the knoter head boxes. The room housing the diffusers has no wall between it and the digester department.

Fibre Separation

When pulp is blown from the digesters to the diffusers, the steam and non-condensable gases are led to a save-all of dimensions approximating that of the diffusers. Here most of the fibre is thrown out. Gases pass from the save-all to a cyclone for final separation of the fibre and then through a tubular heat interchanger. These heat interchangers provide hot water for washing the diffusers. From the cyclones the gases are led through a baffle type scrubber which acts as a combination jet condenser and gas washer. At this point all non-condensable gases are collected and passed to the furnaces to be burned.

Control Centralized

The pulp is washed from the diffuser tanks into the stock chests and passed on to the screen room, which lies beyond the boiler and recovery room. Another departure from ordinary engineering practice is found here in a combined screen, beater and machine room. This puts the decker chests where the beater crew has control and eliminates duplication in handling of the stock.

Operations in the machine room have been centralized on the second floor. The Black-Clawson stack dryer for the board machine is mounted on the ground level

and extends up through the second floor. The wet end, calendars and reels are located on this upper floor. All screens, beaters and jordans are also on the second floor. The screen room has three knotters serving four Bird centrifugal pulp screens, with a Biffar refiner, made in Germany, installed to work up the screenings and knots. Five deckers thicken the stock for the beaters. A wet machine has its place on this floor also to make lap stock at times of fluctuating demand and supply between pulp mill and board machine.

There are four 2000-pound beaters. A very compact installation has been obtained by equipping the 150 h.p. driving motors with Texrope drives working on very short centers. Beyond the beaters are five Shartle Miami Jordans, each directly connected with a 250 h.p. synchronous motor. The jordans are supplied with pulp by a battery of three Shartle triplex stock pumps installed on the lower floor.

Black-Clawson Stack Dryer

The board machine is the Black-Clawson stack dryer type, built to produce 100 tons of board daily and to operate at speeds of up to 250 feet per minute. There are six vats with 42-inch by 150-inch molds, and the usual squeeze rolls over the vats and primary presses. There are three primary main presses, two of which run forward and one reverse. The drying section consists of 104 42-inch by 145-inch face dryers arranged four and five high in the Black-Clawson patented vertical arrangement. This is followed by two calendar stacks with seven and nine rolls. The sheet is wound on a two-drum upright reel, and rewound on a four-drum winder. A Shartle concrete breaker heater installed on the lower floor takes care of the trim and broke.

Condensate removal is taken care of by the Broughton system designed by Healy-Ruff. A close-fitting hood is installed over the dryer rolls. A Buffalo Forge ventilating and vapor absorption system is also being installed.

Electric sectionalized drive is used on the board machine. The drives are installed on the second floor level and the control board is centralized between the machine and the outer wall of the building where it is

easily accessible and yet out of the way. A 450 k. w. motor generator set supplies direct current for the fourteen drive motors. Falk reduction gears are used to obtain the proper speed ratio. The drive is General Electric.

The other side of the machine room has been reserved for the installation of a 35-ton Beloit Iron Works "Yankee" type paper machine. Pit and footings for the paper machine were put in during the regular construction period and everything is in readiness for the installation of this unit, beginning in January, 1928. The Beloit machine is a 172-inch machine with a 12-foot diameter drier. It will be driven by a 200 h.p. variable speed turbine with especially refined governing mechanism.

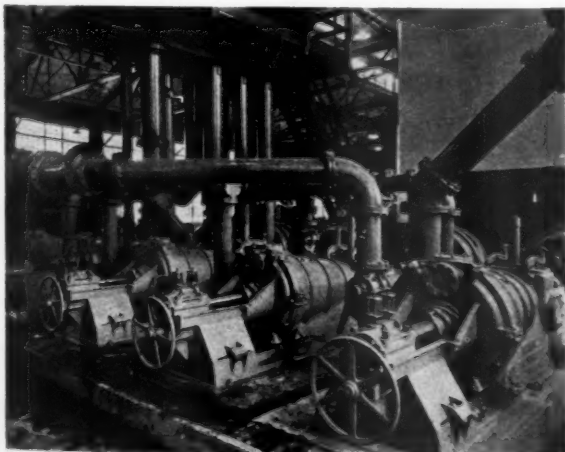
The second floor machine room level is discontinued shortly beyond the winder, affording at this end of the building a storage pit two full stories in depth. This area is served by a ten-ton traveling crane reaching the full width of the building. In addition to this crane there are two 5-ton cranes in the machine room, each covering half the width of the room and serving the area over the machines and the screen and beater departments.

The direct flow of the pulp as traced above depends on several other departments which are vital, namely, causticizing, recovery, power and water.

Causticizing

There are ten mixing tanks in the causticizing department, which is of the batch type. The mixers are on a second floor over four rectangular strong liquor tanks. Outside, and at right angles to the main building, is a rotary lime reburning kiln, 124 feet long and six feet in diameter, to handle the rejected sludge. A continuous slacker is installed in connection with the kiln in which the make-up lime is added and slacked. Milk of lime is pumped to the decanting tanks, and an Oliver lime mud washer dewateres the lime sludge and serves the kiln.

The recovery system is a patented process known as the Peebles Process. It employs an entirely new type of smelter and evaporator. The main points which distinguish the Peebles Process from other sulphate recovery systems is the high black liquor concentration secured through unique and highly efficient evaporating apparatus and improved features of furnace feed and construction. Besides effecting construction and operation economies the Peebles Process is designed to eliminate the usual kraft mill odor emanating from the older type rotary incinerator and disc evaporator.



A Battery of Five Shartle Miami Jordans



C. R. SEABORNE

The operation of the Peebles Process is described by Manager R. S. Wertheimer as follows:

"Black liquor is concentrated to about 75 per cent solids by means of a quintuple effect evaporator taking its steam from a double effect high pressure dehydrator. Together with make up salt cake the black liquor at this high concentration is introduced into the furnaces through specially designed feeding devices. Non-condensable gases liberated during evaporation are led to the furnaces to be burned.

"There are three smelters, constructed of chrome tile, nine feet in diameter and 30 feet high. Suspended air cooled side wall construction is used throughout. Fans force combustion air through the hollow furnace walls for preheating, and the air is then led into the upper zones of the furnace for secondary combustion."

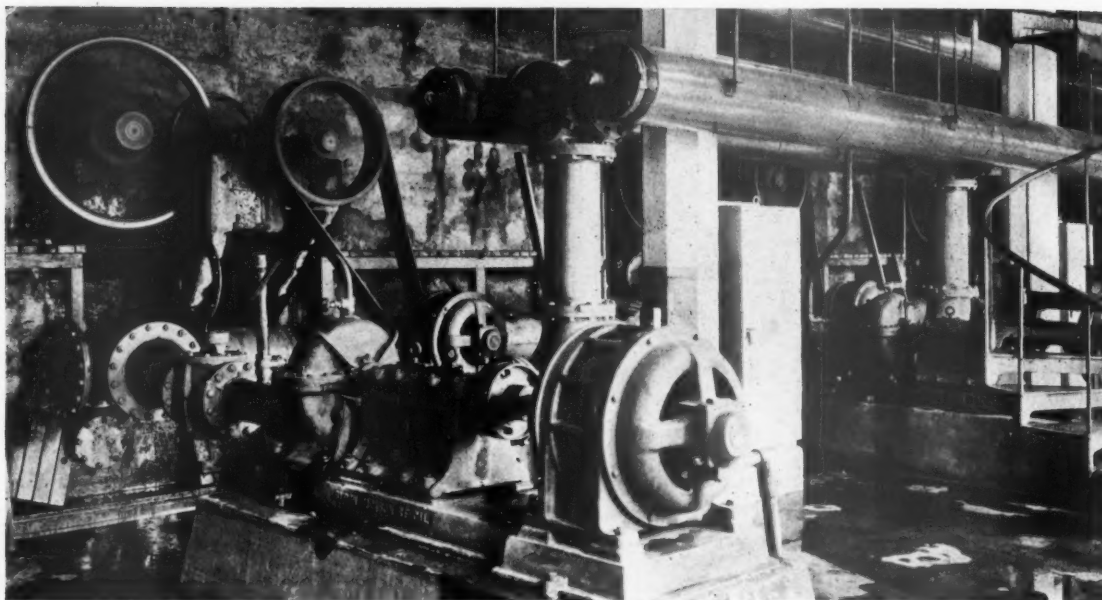
Each smelter is directly connected with a 570 h. p. Stirling type boiler.

The Steam Plant

The direct-fired boiler plant consists of three 837 h.p. Stirling type boilers. These are equipped with Beecher step grates and Dutch oven furnaces of the drop nose type and are designed to use hog fuel primarily, but are also fitted with back shot oil firing for auxiliary use. A 307-foot concrete stack serves both the direct fired and the waste boilers. This stack also serves as an advertising medium for the plant as the name "Longview Fibre Company" has been painted on the length of the stack in huge letters.

The Longview mill has its own generating room, equipped with a 2500 k.w., 440-volt, turbo-generator of the bleeder type. This unit, in addition to supplying the greater portion of the energy required by the mill also functions as a medium for economically distributing required amounts of low pressure steam. The turbo-generator runs in parallel with the generating system of the Long-Bell mill, this latter installation consisting of four 6000 k.w. machines, all operating on hog fuel generated steam. A transformer station of 3000 k.v.a.

(Turn to page 48)



Showing a Part of the Byron Jackson Pump Installations at the Longview Fibre Company

Pumping Equipment at Longview Fibre

Described by CARL KING
Byron Jackson Pump Mfg. Co.

The efficient handling of the large quantities of water used in paper mills has always been a problem demanding careful engineering. The particular problem presented at the plant of the Longview Fibre Company, which is located on low land surrounded by dikes, is further complicated by the changes in level of the Columbia River, both seasonal and through the action of the daily tides. The water for mill operation is secured from the river by means of pumps and after it is discharged from the mill, has to be pumped back into the river at a point lower down stream. It was exceedingly important for the efficient operation of the mill that the pumps for delivering water and discharging waste should be of a type which would show satisfactory efficiencies over the entire range of varying head conditions with maximum efficiencies at ranges covered by the average tide during the major portion of the year.

Water From River

This was solved by the installation of three raw water pumps of the vertical deepwell turbine type situated on a dock extending beyond the levee. These pumps are suspended from a length of column which insures that the pumping element will be below water at all times, and that the motor driving the pump will be above maximum high water. These pumps deliver water through a pipe line to a screen. The water is taken from the screen by means of three 12-inch horizontal, split case, centrifugal pumps, which furnish sufficient pressure for mill use.

The waste water from the mill is run through a sewer to a sump in which are installed three vertical turbine type sewage pumps, very similar in construction to the deepwell pumps at the river front. These pumps are submerged and suspended from steel columns on which are mounted the motors. The operation of these units is entirely automatic through float switch control so that only sufficient units are in operation for

proper removal of the waste water. The water is pumped through a considerable length of pipe, which leads from the sewage pump house near the plant, over the levee, discharging at a point below low water so that advantage may be taken of any siphoning effect.

Another very unusual, and extremely severe, set of pumping conditions exist in the apparatus for recovering the sulphate liquor. The Peebles Process of recovery calls for pumps handling large quantities of hot black sulphate liquor. Two of the pumping units in this process call for pumps handling 1,000 g.p.m. of this substance, taking suction at a 28-inch vacuum and delivering under 75-pound pressure. There are in all eleven pumps used in the recovery process, ranging in size from 8 inches to 2 inches. These pumps are specially designed for this service, being extremely rugged in construction.

Stock Pumps

The Byron Jackson Pump Mfg. Co., which has its main factory at Berkeley, California, supplied all the pumps in the services indicated above. They also supplied three 8-inch stock pumps handling 5 per cent kraft stock from the stock chest to beaters. Before these pumps were selected, one of the 8-inch stock pumps was thoroughly tested in an eastern paper mill and was found capable of handling extremely heavy stocks at the high efficiencies demanded by modern practice.

Unique Construction

The Type KS stock pumps are of the single suction, open impeller type, with removable side plates, and the pump case is split on the horizontal centerline. They are unique inasmuch as the suction and discharge are incorporated in the lower half of the pump case, so that no pipe flanges need be broken when opening the pump for inspection. The pump case is entirely separate from the bearing housing, which encloses babbitted ring oiling bearings and ball thrust bearings. The construction of these pumps is extremely heavy, using very large shafts and liberal bearing dimensions. They are designed primarily for efficient, continuous opera-

tion. Wearing parts are all readily renewable and are extremely accessible.

The Byron Jackson Company also supplied two 4-inch, 2-stage boiler feed pumps driven by steam turbines, a 1,500 g.p.m. Underwriters fire pump, and the pumps for handling the milk of lime in the mill.

How Blaw-Knox Digesters Are Made

Described by F. O. LEITZELL

The Blaw-Knox Co.

Recently a technical organization in the paper industry gathered from its members a report on the service of forge and hammer welded digesters. Five were reported to have been in service for 37 years, one for 35 years, one for 34 years, one for 33 years, two for 20 years, and the rest from 15 to 33 years. This only confirms the understanding of pulp manufacturers that forge and hammer welding has proved to be a thoroughly reliable type of construction for digesters.

The Blaw-Knox forge and hammer welded digesters, installed at the Longview Fibre Company mill were designed to comply strictly with the A. S. M. E. code for unfired pressure vessels. They have a daily capacity of 25 tons each and operate under a pressure of 150 pounds. Each vessel has an inside diameter of 9 feet 6 inches, a length of the straight shell of 35 feet, overall length from face to face of end flanges 40 feet 6 inches, shell plate thickness $1\frac{1}{4}$ inches, head plate thickness $1\frac{3}{8}$ inches and cubical content of 2,640 cubic feet.

Welded Openings

At the top there is the usual 24-inch filling hole, at the bottom a 9-inch blow-off nozzle, and in the shell near the bottom a 7-inch nozzle; all of these are forgings joined to the vessel by hammer welding. In addition there are eight smaller connections, all four inches or under. These are also forgings joined by fusion welding.

The filling hole cover is secured by quick acting bolts for quick opening. Of special interest was the use of standard square head bolts that can be renewed from stock. This was accomplished by employing a special bolt retaining ring.

Standard dished heads with false bottoms and screens were used instead of the conical bottoms formerly thought necessary. Forming a cone bottom from heavy plate is obviously more expensive than using a standard dished head. False bottoms and screens have made it easy for the pulp to be discharged without the additional expense of making the cone a part of the digester itself.

No Riveting

Heavy U-shaped steel plate lugs, fusion welded to the shell, are employed for column support. This type of support lug eliminates any riveting to the shell so that when erected each digester is virtually a one-piece vessel just as it left the Blaw-Knox Company plant. The elimination of rivets is necessary due to the chemicals used in the cook.

The process of hammer welding is of interest. The plates are rolled to the proper diameter and lapped by more than the thickness of the metal. The cylinder thus formed is mounted on the carriage of the welding machine and two water gas burners mounted on long arms are inserted, one above the lap, and one below. The section to be welded is brought to welding heat by the reducing flame of the water gas.

The burners are then quickly removed and an air operated anvil comes up under the lapped joint. At the same time the operator starts a powerful pneumatic hammer which is swung on an arm over the cylinder, and hammers the lapped joint down to one plate thickness. This operation is repeated until the longitudinal weld is finished.

Circular welds are made in much the same way. One end of a completed cylinder is belled out to receive with proper lap the straight end of the next section. For circular welds, however, the cylinder is rotated as the welding progresses. Dished heads are joined to the straight shell by circular welds and all nozzles or connections five inches and over in diameter are also hammer welded to the vessel.

It should be noted that water gas is used throughout the process for heating the metal. Water gas burns with a reducing atmosphere which insures clean hot metal for welding without any oxidation.

Annealed in One Piece

After completion each digester is annealed in one piece in a large annealing furnace 12 feet square and 50 feet deep. This step in the process is of vital importance. Due to the difference in temperature between the joint and surrounding metal at the time of welding, there is a variation in the rate of cooling. As a result internal strains are set up which remain until removed by proper annealing.

While it is possible to anneal a hammer welded joint after a fashion by local heating, all strains cannot be completely removed except by heating the whole digester in a furnace large enough to receive the completed vessel.

The readers of the PACIFIC PULP & PAPER INDUSTRY will be interested in knowing that there is now a low all rail freight rate in effect to the Pacific Coast; from the Blaw-Knox Company's plant at Pittsburgh, for example, this rate is only \$1.73 per hundred to points on the Coast.

Hayton Centrifugal Pumps

All of the centrifugal pumps furnished the Longview Fibre Co. by Hayton Pump and Blower Co. are of the horizontal-split type. Both single and double suction pumps were used, the type being used, of course, depending upon the material being handled. The sizes supplied run from 2-inch to 12-inch and all pumps have motor drive.

This mill being a kraft mill, the majority of the pumps are, of course, iron fitted. One pump might bear special mention. This is the green-liquor pump, and those parts of the pump which are the most subject to wear have been made out of chrome steel. This material is known to stand the abrasive and chemical action much better than an ordinary iron pump.

The stock pumps furnished for this mill have been provided with cleanout attachments on the suction so that quick access is obtained to the impeller in case some foreign material gets into the impeller.

Bearings Feature Black-Clawson Dryer

An outstanding feature of the Black-Clawson board machine installed at the Longview Fibre Co. is the type of bearings employed. In this installation a special sleeve type of self-aligning bearing has been used. The couch rolls, all of the squeeze and primary press rolls,

the main presses and all of the felt rolls at the wet end are carried in these special bearings. The bearings themselves are fitted over the journals of the rolls and remain in this position while the felts are being put on. This is accomplished by carrying the bearings in separate brackets from which they are quickly removed by the turning of a small handwheel.

The bearings are self-aligning and are fitted with Promet metal bushings which have only one-fifth the co-efficient of friction of the usual bearing metal. Furthermore, the Black-Clawson engineers point out, the bushings can be quickly removed and replaced when necessary as the bearings are jugged in their construction, and, therefore, all parts are interchangeable.

Bearing repairs can be quickly and easily made by any mill mechanic. All of these bearings are of the ring-oiling type and are completely enclosed, confining the oil to the bearing itself so that it is used for lubrication only and not allowed to slop over and soil the edges of the felts and other parts of the machine.

The drive stands also are equipped with special bearings of a similar type and on these also the Promet metal bushings can be removed and replaced in a few moments.

Oliver Lime Mud Washer at Longview

Lime sludge from the decanting tanks, containing approximately 25 per cent solids, will be dumped to a sump tank in the basement and thence pumped to an Oliver lime mud washer.

This Oliver has a cylinder 6 feet in diameter by 10 feet face, revolving in a tank providing for 40 per cent submergence, and is specially designed for washing and dewatering lime sludge.

Tank and cylinder are entirely of cast iron construction with the exception of the filter medium which is Monel wire cloth.

As the cake formed on the face of the cylinder by the application of vacuum emerges from the tank, the entrained liquor and soluble alkali are washed out by hot water applied by means of showers and the cake is discharged at 50 per cent moisture to a scroll conveyor which feeds the re-burning kiln.

The cake is re-burned in the kiln and returned to the causticizing room as quick-lime for re-use.

Owing to the absence of alkali in the thoroughly washed cake from the Oliver, the formation of clay rings and other kiln troubles are practically eliminated.

Lime returned to the causticizing room amounts to 85 per cent of the original charge which is the maximum amount economically possible.

First Shipment from Longview

The first water shipment from the new Longview Fibre Company plant was made December 5, when 250 tons of Longview Fibre Liner, the trade name for the sulphate kraft liner manufactured by the Longview concern, was shipped on the American-Hawaiian freighter Georgian. The shipment is destined for the East coast. The Longview concern plans to make practically all its shipments to the East coast by boat through the Panama Canal, using the public port dock at Longview.

Floods Threaten Crown Willamette Camp

Flood waters in Southwest Washington late in November brought up the levels in the Cowlitz and the Columbia rivers and caused some damage. Several log

rafts and smaller buildings were washed away. When Duck Creek in Cowlitz County, Washington, went on a rampage, where the Crown Willamette Paper Company is logging, Edward P. Stamm, foreman at the Crown Willamette camp, was severely injured when struck by a small tree while in the act of warning inhabitants of the camp about the rising water.

McDonald Injured in Car Crash

J. A. McDonald, mill superintendent at the Longview Fibre Company, Longview, Washington, was severely injured early in November when his car crashed through the railing of a small bridge near the mill. Mr. McDonald sustained severe chest bruises and was taken to the hospital and later to his home.

Declares Lumber Outlook Good

Although the lumber industry as a whole has suffered setbacks in 1927, the situation is no more serious than those depressions which have occurred at intervals during the past 50 years. This is the opinion of R. A. Long, chairman of the Board of the Long-Bell Lumber Company, in a statement made in connection with an announcement that the Long-Bell Lumber Company had decided to pass the December dividend on its class A stock.

Mr. Long believes the well established companies will see material improvement during 1928 and bases his contention on past experiences which show that material improvement follows every depression.

M. A. Wertheimer to Visit Longview

H. L. Wollenberg, president of the Longview Fibre Company, was in Chicago on business the first week of December. Mr. Wollenberg expects to return to Longview about December 15, and will be accompanied by M. A. Wertheimer, of Kaukauna, Wis. Mr. Wertheimer is the chairman of the board of directors of the Longview Fibre Company, and the president of the Thilmany Pulp and Paper Company, of Kaukauna.

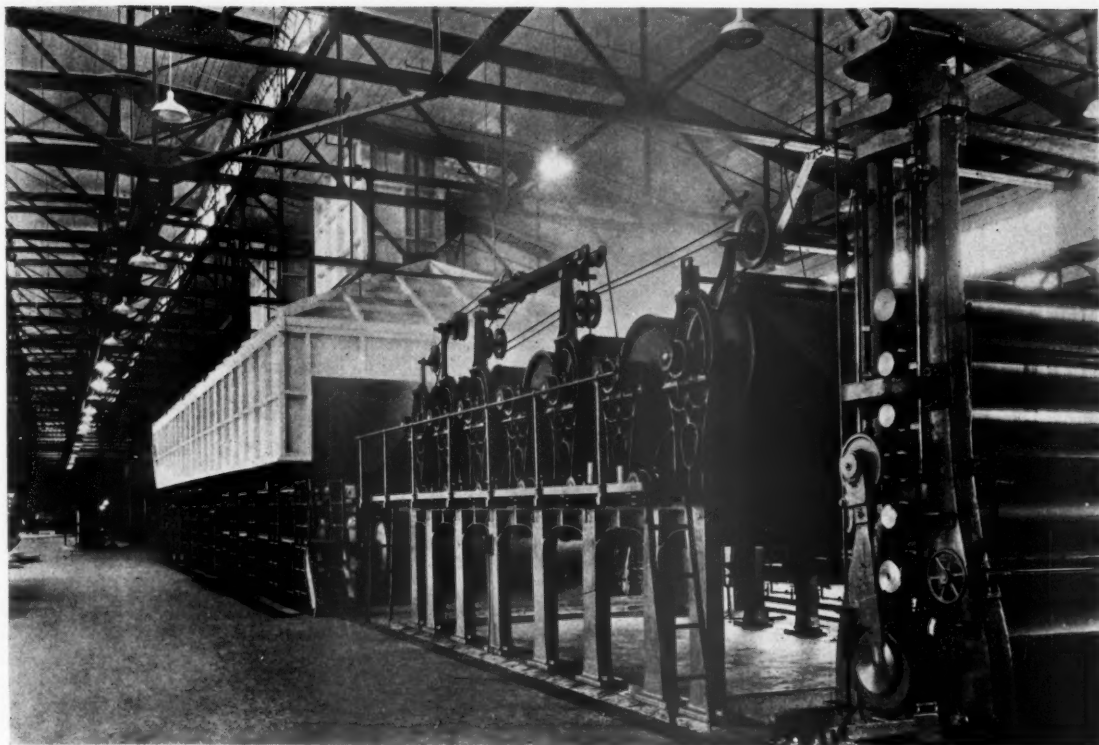
Riddell Returns from East

A. C. Riddell of Riddell-Reid, Inc., has returned to his home in Los Angeles after an extensive trip through the East which began on October 1. He spent considerable time in New York and also became involved in the floods in New England. He returned to the Pacific Coast by way of Seattle and then stopped at the company's Portland and San Francisco offices on his way south.

Riddell-Reid, Inc., are Pacific Coast representatives for the Advance Bag & Paper Co. of Boston. Mr. Riddell states that the Advance company is now building a huge kraft mill at Hodge, La. The mill will have a 242-inch machine for kraft paper manufacture. The total operations include 100,000 acres of timber lands and the purchase of a railroad. The total investment will approximate \$15,000,000. Natural gas is brought in for fuel through a main 45 miles long.

"The operation of this mill will not mean a greater total production of bags," Mr. Riddell said. "The Advance Bag & Paper Co. is simply branching off and will manufacture its own kraft paper."

Mr. Riddell also announced while in Seattle that the Seattle office of the company is being moved on January 1 from the L. C. Smith building to 312-313 Railway Exchange building. Edmund J. Garvey is Northwest manager in charge of the Seattle office.



This Black-Clawson Machine at the Longview Fibre Company Is Operated From the Second Floor. The Vertical Drying Section Is Mounted on the Floor Below, Concealing in This View About Half of the Cylinders

Lessons From a Water Kettle

The Vertical System of Drying Sprang From a Simple Idea

By ALLAN HYER, The Black-Clawson Co.

IN the last analysis drying paper is essentially an operation of removing water by evaporation. As we all know from our high school classes in physics, the rate of evaporation depends upon temperature. That is obvious. However, evaporation also depends upon atmospheric pressure.

For instance, if we take a kettle of water and put it on the stove we will notice that small bubbles soon begin to form at the bottom and rise to the top and burst. The number and speed of these bubbles increases as the water becomes hotter and hotter. Finally they become so large and rise so fast that the water boils. It is then that the water is evaporating most rapidly.

Now then, if we take this kettle of water down to the seashore where the atmospheric pressure is 14.7 pounds to the square inch, we find that water boils at 212 degrees Fahrenheit.

Again, if we take it to a high mountain, about a mile above sea level, where the atmospheric pressure is only 12 pounds to the square inch the water boils at 202 degrees.

Similarly, if we place a hood over the kettle and restrict the outlet of the vapor we can increase the atmospheric pressure to 19.7 pounds and raise the boiling point of the water to 227 degrees. Obviously it takes

less heat to boil water at 202 degrees than it does at 227 degrees.

A more homely, more easily understood application of this principle of pressure and drying rates is your wife's washing. You come home some washday evening and ask her how things went that day and she tells you that the wash never seemed to dry at all. After dinner you look at the evening paper and read the weather reports to find that the humidity for that day was very high. In other words, the dampness in the air increased the atmospheric pressure so that it was harder for the little vapor bubbles in the clothes to form and rise and burst. Consequently the clothes dried more slowly. On a warm clear day, one after several days of bright sunshine, with the puddles on the sidewalk and in the street all dried up, the wash dries almost as fast as it is hung up.

This same principle of drying takes place in the drying room in drying paper. As the paper weaves up and down and around the dryers vapor pockets are formed which hinder the escape of the vapor. This increases the pressure at the point of drying. At 150 degrees this additional pressure will amount to as much as 3.7 additional pounds of atmospheric pressure. Obviously, if it takes a higher temperature to boil water where the pressure is increased it will also take more

steam to dry the paper where the pressure is increased.

In the vertical system of drying as advocated by the Black-Clawson Co., there are no vapor pockets. Moisture and humidity are dispersed. This decreases the amount of atmospheric pressure and likewise the consumption of steam required to produce a sheet of given dryness. The reason there are no vapor pockets is in the arrangement of the dryers.

The Black-Clawson Company recently made some tests of the dryness of paper at different stages of the drying process, both in the center where the vapor pressure would necessarily be greatest, and along the edges. The tests were made in this manner. Taking a supply of Mason jars of the kind used in canning fruit and preserves, they tore out a piece of paper in the center of the sheet, placed it in one of these jars, and immediately sealed it. The same procedure was followed for both sides of the sheet.

Moisture Content

The laboratory tests for moisture content of these samples brought out the figures given below:

Cylinder Machine (Triple Deck)

Consisting of stock 84 per cent board.

Taken out of head box—pulp 1.120.

After squeeze rolls	69.1%	water	
After first press	68.2%	water	
After second press	65.9%	water	
After third press	64.8%	water	
Dryers	Front	Center	Back
First section	52.8	58.2	52.1
Second section	18.3	22.5	16.7
Third section	3.85	3.95	8.51
Finished	8.36	8.84	8.51

Vertical Dryer Installation

.042 Chip 105 ft. (138 dryers)

Per cent of moisture—

After third press:	front	center	back
	72.2	65.6	67.8
After 18 dryers:	70.7	62.8	67.3
After 58 dryers:	55.3	45.4	52.5
After 98 dryers:	23.6	22.4	24.8
After third press—6.28% dryer in middle than average of edges.			
After 18 dryers—8.98% dryer in middle.			
After 58 dryers—15.76% dryer in middle.			
After 98 dryers—7.43% dryer in middle.			

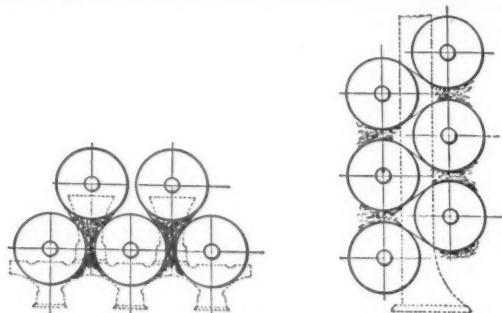
You will notice that while the sheet is more moist in the center on the triple deck machine, it is dryer in that of the vertical dryer. Ordinarily these figures are uniform across the sheet but in this case the press rolls were carrying the crown that had been used on the triple deck dryers and which was necessary to compensate for vapor accumulation in the center of the dryers. Translate this into terms of steam and fuel saved. Moreover, because of this better drying it has been found possible to dry paper at a lower temperature on a specified number of dryers.

In the Beckett Paper Company, Hamilton, Ohio, vertical dryers reduced the steam pressure required for drying from 25 to 10 pounds, saving three tons of coal per day, and increased production $8\frac{1}{2}$ per cent, paying for themselves in the first year.

Decreased Floor Space

While the foregoing is the principle advantage of the vertical system of drying, there is another, more immediate in its appeal, namely, the decreased amount of floor space required for its installation. The vertical system is built up—4, 5, and even 6 or 8 high—like a sky-scraper instead of in floor area like a circus tent. A striking illustration of this is the installation of the

Franklin Board and Paper Mills of Franklin, Ohio. Late in 1925 this mill felt the need of enlarging its production to meet increased demand. Without in any way enlarging its floor space it increased the size of its paper making machines from six vats and 86



These Sketches Illustrate the Principles of Horizontal (left) and Vertical Drying

dryers to seven vats and 138 dryers. The remodeled machine, although more than 60 per cent greater in dryer capacity, takes up no more space than the old machine.

The first vertical dryer was installed in 1915—12 years ago. Today there are 49 installations of vertical systems using a total of 3,300 dryers.

Merger Emphatically Denied

Gossip of the trade on the Pacific Coast to the effect that interests of the Crown Willamette Paper Company and the Zellerbach Corporation were considering a merger, have been spiked by vigorous denials by presidents of both companies. The street rumor even carried the merger to a point of eventual consolidation with the International Paper Company. A direct question to the two Pacific Coast companies brought forth the following letters:

CROWN WILLAMETTE PAPER COMPANY

Louis Bloch,
President
San Francisco, Calif.,

Pacific Pulp & Paper Industry,
71 Columbia St., Seattle, Wash.

Dear Sir:

Your letter of November 7th, requesting a statement from us in connection with the rumor, which you say is current on the West Coast, to the effect that a merger between the Zellerbach Paper Company, Crown Willamette Paper Company and the International Paper Company interests is contemplated, has been received by us and, in reply thereto, we wish to advise you that the rumor is absolutely without foundation.

Very truly yours,

LOUIS BLOCH, President.

LB:K

ZELLERBACH PAPER COMPANY

Headquarters: San Francisco

President's Office

November 9, 1927.

Pacific Pulp & Paper Industry,
71 Columbia St., Seattle, Washington.

Gentlemen:

Replying to yours of November 7th regarding the under-current of rumor on the West Coast to the effect that the Zellerbach interests, Crown Willamette and the International Paper Company are contemplating a merger, I beg to advise you that there is no foundation for this rumor.

Very truly yours,

I. ZELLERBACH.

I. Zellerbach:ES

Ossian Anderson on Eastern Trip

Mr. Ossian Anderson, president of the San Juan Pulp and Paper Company, has left the Coast for a short business trip East, during which he expects to visit the pulp and paper plants of the Middle West and Atlantic Coast.

Arguments for the Carton Pack

CARTON packing, as compared with the old case method of packing paper, has a staunch supporter in Thomas H. Doane, vice-president and manager of the Pacific Coast Paper Company, San Francisco.

"In the first place," states Mr. Doane, "the wooden cases that are being received by the paper merchants now are generally manufactured from lumber of a very inferior grade. Quite frequently these inferior lumber cases are broken in transit and the result is that their contents arrive in deplorable condition.

"I recently had occasion to examine some cases that arrived and found in many instances that the sides of the case had six to eight strips of lumber as compared to three or four wider strips used in former days. This would indicate that lumber for box manufacture is getting scarcer, or perhaps a better method of stating this would be to say that the better grades of lumber now find better demand for other uses, and the poorer stuff gets into the boxes.

Envelopes First

"The mills picked up the problem of the carton packing, but it was first started by the envelope manufacturers. Our first shipment of any quantity of envelopes was received in June, 1923, far in advance, we believe, of any concern in the West. This shipment created quite a furore with the Western merchants and Western manufacturers, who were not all pleased with the new innovation.

"Previous to the arrival of the first sizable shipment, we had had quite a few carton shipments in smaller quantities sent to us as try-outs. When our mill was satisfied they had found the right carton package they then started in full blast. In times previous to this our cases held 50,000 28-pound 6 $\frac{3}{4}$ envelopes. This case contained practically 50,000. The weight was in the neighborhood of 480 lbs. gross. The case was absolutely impossible to handle, and the merchandise was generally damaged in the wooden cases.

"Today a merchant will have quite a come-back if he receives envelopes which are not carton-packed. The printer is in favor of carton packing for the reason that when he has completed his process he returns the envelopes to the carton and has a very fine delivery package for his customers.

A Better Package

"From envelopes we turned our attention to carton packing of Bristols, Blanks, Railroads, Tough Checks, Chinas, etc. We tried out several small shipments which were not totally satisfactory. Our first large shipments began to arrive in April, 1927, and as time has shown improvements in cartons, so complaint about merchandise being delivered in cartons should eventually be eliminated. The printer now gets his merchandise in much better shape and condition, as heretofore the cardboard was tied up with ropes and quite frequently stock was damaged by the ropes cutting in. Today it is delivered in a 100 per cent clean package.

In May of the present year, Mr. Doane points out, mills manufacturing bonds, flats, ledgers and similar

papers took over the idea, and, although the idea of carton had not reached the state of perfection, the idea seemed to offer enough advantages to warrant use.

"A few mills still object to the carton pack," Mr. Doane states, "but I think you will find the objections confined principally to those mills which have not given the idea a real trial. However, a blind man can see how this method is going to ease up on the paper merchant, printer and stationer on deliveries. The average carton contains about 125 pounds of merchandise.

"In a recent discussion with a mill man who had not yet tried out carton packing I was able to give some actual demonstrations of goods that had been shipped both in cartons and in the old wooden cases. The paper which had been shipped in the wooden cases had a broken wrapper in almost every instance, while the paper which had arrived in cartons showed not a single broken ream wrapper.

"It is difficult to avoid broken wrappers when packing in wooden cases. It is next to impossible to take a double folio or double case ream and drop it into a box 30 inches deep without breaking the ream wrapper and spoiling the package. With the cartons running only six to eight inches in depth this danger is removed."

Easier Handling

Then there is the matter of secondary use that the carton has in its favor, according to Mr. Doane. The paper merchant passes the carton on to the printer in practically as good condition as received, and provides the printer with a good container. The carton being of telescopic construction also serves to keep the dust from the paper because of the cover.

"The real favorable factor," Mr. Doane states, "is the greater ease with which the cartons can be handled. There have been a number of incidents wherein men have been injured by the slipping of tiering machines, or where the bulky and heavy wooden cases have fallen on them. The carton is an easy package to handle and the danger of injury is practically eliminated."

Spaulding Mill Producing

Pulp production started at the Spaulding Pulp & Paper Company, Newberg, Oregon, November 23, the first shipment of the product going to Perkins-Goodwin Company, New York, December 1. Formal opening of the plant was scheduled for the tenth of this month, and the Newberg Chamber of Commerce was cooperating with the personnel of the new concern in arranging a fitting program.

Since the beginning, the equipment of the various units has been working well, it was declared, with the different units swinging into production.

The Spaulding mill is concentrating on the production of pulp of exceptionally high quality, according to company officials.

Plans for the paper mill, which is to be built in connection with the pulp plant, are being prepared, and actual construction on the new unit is scheduled to begin in the early spring, it was said.



The Pacific Coast Has Many Stands of Virgin Hemlock That Can Benefit by Sensible Timber Taxation

Sensible Timber Taxation

By J. B. FITZGERALD

West Coast Lumber Trade Extension Bureau

THIRTY YEARS ago there was a little community up in Michigan. A railroad ran through the timber nearby connecting the village with Chicago and St. Paul. Near the station was a general store, a school house and a church. Thirty or forty frame houses were scattered in the logged over land near the railroad. Children played in the old stumps and their fathers worked in the sawmill over on the creek a half mile away. Lumber was the reason for the town. It brought the line of railroad from the main line. There was forest beyond the clearing as far as one could see. Logging in the winter and sawmilling in the summer kept the little community busy all the time. A few of the more ambitious cleared tracts of stump land and began to farm.

No Forest, No Life

Today, just thirty years later, that Michigan forest is all gone. The community has disappeared leaving few traces that it ever existed. After the timber was cut, fire went through the slashings and those families who remained behind trying to farm, fled for their lives before the flames, leaving everything but their clothing. Where green virgin timber had grown to feed and cover thousands of animals there was now neither cover nor food for the smallest and meanest. As far as the eye could reach was black ruin.

Once prosperous counties in Michigan have recently petitioned the state for funds to pay for their local school and road expenses. These counties were built up out of timber. When the schools were started there was plenty of green timber and the owners of this asset paid the greater part of the taxes. Timberland was taxed not only for the ground, but for the growing trees. Each year a tax was levied on that same timber. For the time being the counties had plenty of money.

Too Much Timber

Timber in Michigan was not worth much thirty years ago because there was so much of it. This was true also of Minnesota and Wisconsin. It is true of Washington and Oregon today. And because the people of these two states have too much timber—for today's use—they are practicing the same method of forcing timber owners to cut their timberland as did the people of Minnesota, Wisconsin and Michigan. They tax the timber every year. In a few years the amount of taxes already paid, added to the carrying charges, interest and fire prevention, equal the market value of the standing timber. As the market value is set by the amount of timber offered for sale, and as more timber is offered than can be used immediately, the market value is low.



Western Hemlock Develops Good Second Growth Stands if Given a Helping Hand

But taxes keep coming due. The timber owner, facing a day when his taxes and carrying charges will be more than the then market value of his timber, puts in a logging operation and begins cutting his trees. Timber owners in Michigan, Wisconsin and Minnesota did this; timber owners in Washington and Oregon are doing it now. They cut part of their holdings to get money enough to pay taxes on the remainder. They figure on breaking even until the day when rising values of timber will catch up to them. Values, under this method, can only rise when most of the accessible timber has been cut. The reason for this is that all timber owners are in the same fix; all cut at the same time in order to get money to pay for carrying more timber and all throw their logs on an already glutted market.

Taxed Out of Business

Michigan, Wisconsin and Minnesota taxed themselves out of the lumber business. They made it unprofitable for investors to hold timber lands. The states and their counties profited temporarily from the large tax returns paid by owners of timber, but, the more the taxes, the greater the rush of the timber owners to cut and get out. Large tax returns thus killed the goose that laid the golden eggs and Michigan, Wisconsin and Minnesota awoke to find their forests practically all gone and the timber owners of a while ago not at all interested in regrowing others.

"Why should we," they said, "when the state chased us out of that business just as fast as it could?"

They let the logged off lands go back to the state—where they could—or they sold them to settlers for

farming lands and moved into other forests.

Michigan was at the height of its lumber production about 1890—about thirty-five years ago. Today there are hundreds of communities in that state that are literally bankrupt. As the mills cut out the people left and the little towns were deserted. The land, much like a great portion of Oregon and Washington in this, was unsuited for agriculture. When the lumber people left, all values went with them. Five-room houses in formerly prosperous lumber communities were offered for \$50, but there were no buyers. Many of the timber counties in Michigan are now unable to raise money enough from taxes to run the county government. These get more from the state for school and road purposes than the total they pay into the state treasury. Yet, had Michigan started when logging first commenced to reforest her forest lands, her hills would have been forever green with profitable timber.

Obsolete Taxation

Washington and Oregon have the last great stands of virgin forests in America. Foresters say these forests are among the best stands of softwoods in the world. Washington alone is cutting, in the entire state, 175,000 acres of forest every year. Yet, with all the lessons of Michigan, Wisconsin and Minnesota—and a dozen other former forest states—Washington and Oregon have to date continued the obsolete method of taxation which more than anything else left the Lake states bankrupt of timber when the lumberman had passed. That this is a danger of today is attested by a public speech a year ago by the president of the West

Coast Lumbermen's Association, who stated that, in his judgment, 25 per cent of the logs cut into lumber in the Douglas fir region of Washington and Oregon during the previous year, were forced to the market because of accumulated taxes and other carrying charges. This 25 per cent, lumbermen believe, is largely responsible also for lack of adequate profit in the lumber business of the two states.

Cheap logs sold for cash to pay taxes to keep the owner from going broke, set the price for all other logs and for all lumber. The man who would get a fair price for his logs, planning to hold his logged over lands for reforestation, finds a competitor selling logs below his own costs. He meets competition, as he must, and a great resource of the state is shipped away from the mill without profit to local citizens. Other logging camps and sawmills do the same. Lack of profit from the first virgin forests do not give the timberland owner a good reason for holding his lands for another crop. If he cannot make a profit on timber grown by nature, because of taxes paid the last 20 years of its life, how is he to expect a profit on another crop grown by himself. If taxes overcome him in twenty years, he wants to know why he should expect better treatment when planning for a 100-year crop. This is the barrier in Oregon and Washington, as it was in other states for 150 years, which has stood between the virgin forests and a prompt second growth.

Change System

The answer to all this, close students believe, is a system of taxation suited to the regrowing of forests. Michigan and Wisconsin have recently enacted such laws, long after their virgin forests were cut. Minnesota and California, during 1927, passed laws to encourage regrowth of logged off forest lands by holding off taxation, other than a small levy on the land itself, during the years that the crop is growing. Such legislation has been placed on the books of Alabama and Louisiana in recent years. Oregon and Washington proposed to do likewise a year ago. These laws are all intended to make the growing of second crops of trees practical; by removing the barrier of high taxation during the period the crop is growing; substituting a land tax, from year to year; and a yield tax when the crop is harvested.

These forestry laws have all been passed in the interests of the people as a whole in the several states and not for the particular advantage of the lumber interests. In most cases they have been passed after the forests were gone or mostly cut. The laws have come about because the people in the timbered states learned from costly experience that they cannot have forests always if they do not prepare the way, while the first forest is being cut, for another one to grow.

Amendment Defeated

The Washington legislature passed an amendment to the Constitution two years ago to prepare the way for a timber tax law, applying only to the new forests, in the state of Washington. The amendment was voted on by the people of the state last fall and was defeated.

The amendment, if it had passed, would have permitted the state to enter into a contract with a private owner and set the rate of taxation on land held for tree growing so that this tax would not vary during the growing of the crop. The owner, according to the terms of the amendment, would have to manage his forest lands according to the rules and regulations laid down by the State Forest Board. Such an amendment, for-

esters agree, would guarantee to the state that lands suitable for reforestation would be reforested.

Washington's timberland is being cut now at the rate of 175,000 acres per year and there is no good reason to believe that less cutting will come in the future as long as timberland is fairly easy to get. The remaining forests and the second growth are Washington's chief asset. Much of the forest now standing is mature and should be cut and all of the cut-over area, unfitted for farming, should be put to work reproducing, as rapidly as possible, a new forest growth. Foresters in the Northwest believe that tax legislation which will permit the states to enter into contracts with timber owners for a small land tax on future forests and a yield tax at time of cutting, will produce a new forest in the shortest possible time.

A Large Timber Area

Fifty per cent of the land in Washington is not suitable either for agricultural or grazing purposes. Yet, 35 per cent of the land in the state can be used for growing permanent forests. These large areas, unsuited for any other known purpose, may be made profitable as long as people want lumber, paper, or other products of the forests, if they are kept busy growing successive forests. In Western Washington and Western Oregon, Douglas fir forests will regrow themselves if uncontrolled fire is kept out of the logged over areas, but private timber owners cannot go into the business of raising even this fast growing tree until they are assured that the growers' rights will be protected until the trees have reached an age of fifty or sixty years. Tree growing is the world's longest crop. It stretches over from one generation into another and sometimes three or four generations of men will be needed to bring one tree to maturity. Different laws are needed, both for the protection of the crop and for purposes of taxation, than on any other crop because the growing timber carries so much of value to people yet unborn and to the state of the future.

Foreign Examples

New York state, two or three generations after her forests were logged and left to care for themselves, has started the largest reforestation project in the United States. Sweden has one lumber company which has operated the same forests for 700 years. Japan has two large forest areas from which logging has been done for more than 300 years. In Switzerland growing forests has been a national and a local business of regular profit to the government for many generations. The same is true of Germany and many other countries. Growing forests takes time, but it pays. Especially will growing forests pay the states of Oregon and Washington, where so much of the land, good for nothing else, will grow the finest softwoods on earth.

There are today hundreds of little communities in Washington and Oregon living directly on the products of the states' forests. If these forest growing acres can be kept at their task of producing timber, 30 years more may find these small communities developed into energetic cities. With proper public encouragement to land owners in growing trees, there need be no deserted lumber villages in the Northwest.

Washington can produce six billion board feet of timber annually on a sustained yield basis, according to studies made by the School of Forestry, University of Washington. Closer forest utilization than is practiced today is allowed for in this estimate, which includes pulp, wood, poles, cordwood and other items in addition to lumber.

Whether Washington and Oregon are to have the ruins known to Michigan and Wisconsin, or hundreds of prosperous little communities supported by the forests, depends almost entirely on the tax policies of the two Northwest states. Sensible timber taxation will result in perpetual forests for the Northwest, providing raw material for scores of industries. Short-sighted taxation as is practiced now, levying an annual tax on all standing timber, will continue to cause forced cutting and eventually the abandoning of logged-off land. If heavily timbered counties force rapid cutting their taxable assets will be diminished and logged-off land may revert to the county for taxes. In that event, other property would have to bear the tax burden now carried largely by the forests. Furthermore, if the county, as the owner, protects its cut-over land from fire, the cost of this protection will have to be met with taxes on other property. All of which tends to create conditions favorable to community bankruptcy.

A Tax Consciousness

Consciousness that the present system of taxing timber in the Northwest is unsound is gradually coming to be a popular idea. People of the Northwest are becoming educated on forestry matters. They are beginning to realize that taxing the immature or growing forests heavily every year is opposed to the best interests of the next and following generations. Many now understand that a favorable system of forest taxation covering new growth is all that is needed to assure the Northwest of an abundance of forests forever. Fire protection for the forests and logged-over lands is more efficient in the Northwest than in any other part of the country. Trees grow faster and thicker here to the acre than any place else in America, so there is greater opportunity here for the practice of forestry; many lumbermen want to place their operations on a sustained yield basis; thousands of acres of logged-off land are suitable only for growing timber; these and other important factors favor reforestation on the greatest practical scale. All that is lacking is the necessary change in the tax system.

Some Pioneers

Several large firms, including one of the largest pulp and paper manufacturers in the Northwest, are so certain that tax legislation fair to timber owners and conducive to the public welfare will be enacted in the near future that they are going right ahead and developing mammoth reforestation programs. Their reforestation work is evidence of their confidence in the wise judgment of the tax payers of the Northwest and in the productivity of our forest lands. These timber owners believe that the tax payers of Oregon and Washington will be guided by the experience of the Lake states and that they will not wait until their forests have been taxed out of existence before they take action to keep the hillsides forever green with timber.

A Battle of the Olympics

A preliminary to what is expected to be an important legal battle, revolving about extensive timber stands, including pulp timber, in the west end of the Olympic peninsula, occurred the second week of November when the Olympic Peninsula Railway petitioned in superior court of Clallam County for appropriation and condemnation of a section of private railway operated by the Bloedel-Donovan Mills company.

The petitioning body was incorporated for \$1,750,000 in October, 1927, by F. S. Scritsmier, C. A. Erickson and J. W. Forrester, of Port Angeles. These men, all connected with the Lyon-Hill logging company, also are associated with the Port Angeles Western railway, a common carrier that formerly was the government spruce railway extending into the western Olympic peninsula. This line is the gateway to vast areas of fir, spruce, hemlock, and cedar timber.

Earlier in the year, R. L. Stearns, president of the Port Angeles Western Railway, petitioned the Interstate Commerce Commission for permission to extend that road's line twelve miles, from Lake Pleasant, its present terminus, to Forks, a settlement on the border of great virgin timber territory. This, it was thought, would be the first move in probable ultimate linking of Grays Harbor and the north peninsula by rail.

Request Granted

Stearns' request, it is said, was granted by the I. C. C., after the importance of the undeveloped Olympic territory to the pulp and paper and lumber industries had been pointed out to that body. At that time it was stated that plans already were in view to locate pulp plants and sawmills near that territory when the railway extension should be completed. A time limit for the carrying out of the extension construction was set by the I. C. C., and later was lengthened by that body at the railway's request.

To cover the right-of-way planned by the Port Angeles Western, the new line must cross lands owned by Bloedel-Donovan, and at this point, apparently, disagreement sprang up between the two corporations regarding such right-of-way.

Railroad Incorporated

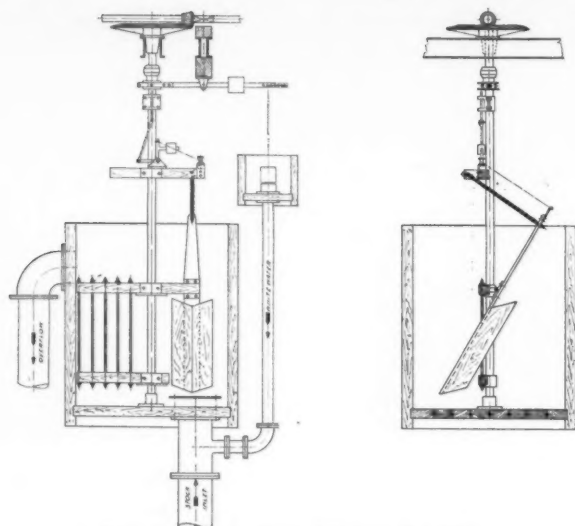
A seeming step in the Port Angeles Western expansion program occurred, then, when the corporation formed by members of its personnel, the new Olympic Peninsular Railway, petitioned for condemnation of the Bloedel-Donovan logging road. In its request, the Peninsular corporation declared its intention of maintaining the Bloedel-Donovan line, extending about twelve miles from Sekiu to a point on the Port Angeles Western, as a common carrier for freight and passengers. Its petition sought the right of eminent domain to procure a condemnation.

J. J. Donovan, vice-president of the Bloedel-Donovan company, on November 16, declared that the Lyon-Hill men were merely using the condemnation petition as a means of attempting to place his company "in a position where for our own protection we would have to buy their property"—the Port Angeles Western Railway. He stated that the men had been attempting to sell the Port Angeles Western "in every possible market" and had failed in their efforts. These declarations were contained in a signed statement by Mr. Donovan given the Port Angeles Evening News November 16.

Hearing in January

The next moves in the situation will occur January 7, when the hearing takes place in Clallam County, Washington, superior court. Meanwhile, the pulp and paper, and lumber industries, are awaiting the outcome of the pending litigation with great interest.

The Bloedel-Donovan interests announced earlier in the year their plans for the construction of a soda pulp mill and paper plant in connection with their lumber mill at Bellingham, Washington.



Diagrammatic View of Warner's Equalizer

Warner's Equalizer

One of the many problems of papermaking is the keeping of the stock at an even consistency. The old-fashioned method of testing the stock with the hand is gone, and all kinds of methods are now in vogue to gain even consistency, and to regulate the freeness. Perhaps no greater advance has been made in the whole science of papermaking than in the methods of testing pulp, stock and paper. In days gone by, papermaking was an art, depending on the skill and experience of the papermaker.

While that is true to a certain extent today, papermaking has developed from an art to a complicated manufacturing process, the main requirements now being the adjustment of the different pieces of mechanism. During the last twenty years much thought has been given by thinking papermakers towards the getting of perfect automatic stock regulators, and many different ideas have been tested.

Used in Pacific Coast Mills

"Warner's Equalizer", a very simple form of stock regulator, in use in several Pacific Coast mills, is shown in the accompanying drawing. The apparatus is designed to insure an even flow of uniform stock to the paper machine, so that paper varying very slightly in weight and texture, may be produced. In the application of the various types of stuff regulators to a paper machine, the efforts of the inventors have been mainly directed toward an automatic stuff gate control in the machine stuff box, regulating by means of an adjustable gate, or slide, the amount of the stock that issues from the box.

Uniform Stock

"Warner's Equalizer" features, in particular, the consistency of the stock, rather than the flow. Referring to the drawing, the apparatus consists of a wood or steel tank, five or six feet in diameter, which may be mounted on a platform to any convenient height. Stock enters from the bottom, and as it rises in the tank engages the agitator arms, propelled by the main shaft from the gearing at the top. An angle-shaped paddle is also attached to the main shaft and, should the stock be heavy, say over 3 per cent, the thick stock presses the paddle, which in turn throws a spring bell crank and loose collar arrangement, opens the

water gate, and admits white water through the pipe, as indicated in the drawing.

It takes some experimenting to get just the right adjustment of the spring for the weight of paper desired, but when all adjustments are made this equalizer will hold the pulp to the correct consistency, and a steady flow of uniform stock will pass from it. It is an easy matter then to set the stuff-box gate to regulate the flow of stock to the machine, to get the desired weight of paper.

Any Kind of Stock

Stock from a pulp mill usually is found to vary greatly in density, and where pumps are used, many pump breakdowns can be traced to heavy stock. "Warner's Equalizer" can be set up at a pulp mill, and a steady run of $2\frac{3}{4}$ stock can be easily maintained.

A careful study of the accompanying drawing will indicate that it is impossible to choke the regulator and equal results can therefore be obtained with shredded stock, frozen stock, coarse stock, or lap stock.

While the drawing shows the stock entering at bottom of tank, equally good results can be obtained by entering at top, that is, flowing by gravity from beater chest flow box, through equalizer and jordan to machine chest.

The equalizer is a great help in running a steady run of paper of even weight.

Schafer Brothers Deny Connection

The pulp mill situation at Montesano, Washington, in the Grays Harbor territory, is still much beclouded. There is a persistent feeling on the Pacific Coast that Schafer Brothers Lumber Co. are going to build a pulp mill. They hold extensive timber country and are prominent lumbermen of the state and are known to have had pulp under consideration at times in the past.

The Schafer Brothers' interests at Montesano are not to be confused with the proposed Shaffer Box Co. at Tacoma, Washington, where a pulp mill has previously been announced.

In a recent interview Mr. Albert Schafer stated that he was aware that persistent rumor had linked the name of his company with a proposed pulp mill. According to Mr. Schafer "there is nothing to it."

Asked point blank if his company had any connection with the Pacific States Pulp & Paper Co. which has been clearing a site near Aberdeen, Washington, and has previously announced its intention to build a mill, Mr. Schafer denied any connection whatever with that organization. There has been a considerable opinion prevalent that Schafer Brothers were backing the Pacific States enterprise.

R. N. Miller Leaves Bellingham

R. N. Miller has resigned as manager of the San Juan Pulp Manufacturing Co. of Bellingham, Washington. Mr. Miller has a long background of experience in the sulphite industry. Besides connections with several of the important pulp and paper mills of the East he spent some time in Brazil making a study of the possibilities of eucalyptus wood for paper manufacture. He was associated with the U. S. Forest Products Laboratory at Madison, Wis., where he carried out detailed studies in sulphite manufacture. Mr. Miller was in Seattle late in November. He made no statement regarding his future plans.

Grays Harbor Construction Progress

Construction of the huge pulp plant now being put up by the Grays Harbor Pulp Company at the site of the old National Mill, Hoquiam, was held up to some extent by high waters prevailing on the harbor during the latter part of November.

The big stack has been built up 100 feet. It is to be 232 feet in height when it is finished, and is expected to be completed about the middle of December. The stack is of concrete on the exterior and will be finished with fire brick on the inside.

One of the two Jenssen acid towers has been built up to a height of 100 feet.

At the first of December the foundation for the settling basin, digester building, warehouse and all other structures of the mill was being poured. This work had been delayed about two weeks by the high water.

Engineers estimated that all the foundations, or footings, for the buildings would be poured by Christmas and that that time would see a general starting of several buildings. The foundation for the boilers will be in by Christmas, it is estimated. The forms were all up early in December.

No work on the main sections of any of the buildings had been started during November by Chris Kuppler & Sons, general contractors. Work on the walls of the warehouse and machine shop started about the fifth of December and these two buildings will probably be completed in the latter part of January at the present working scale. The Kuppler organization, on December 1, had about 100 men working on the plant. He reported some trouble in getting enough gravel and sand onto the site fast enough and in sufficient quantities.

The pulp engineers working on the site of the new plant now include W. E. Beach, resident engineer; L. H. Rubicam, assistant resident engineer; L. E. Hill, assistant concrete inspector; B. E. Demers, concrete inspector; B. R. Oulette, sewer inspector; Lester Johnson and Ralph Griffith, instrument men.

The walls for the big fuel hoppers were to be started early in December along with those of the warehouse, digester building and others. The shortage of sand and gravel which caused a delay in the work at the mill during the last week in November was caused by high water on the Chehalis river, down which much of the material is barged.

No further plans have been made for an early start on water supply development. It is expected that the water supply dam and pipe line can be constructed easily after the major part of the big mill is completed.

It is estimated that the Grays Harbor Pulp Company will begin production about July 1, 1928.

Operating Successfully Under Receivership

The Colorado Pulp and Paper Company of Denver is reported as operating successfully under the receivership of George W. Beck who has been in complete charge since September 3. On December 1 the plant was operating at about 75 per cent capacity and had shown operations at a profit during the receivership. Conversion costs have been cut approximately 20 per cent.

Under an agreement by two opposing forces of stockholders the receiver is to operate with no interference from either side for six months to give ample time in which to determine if the plant can be operated at a profit. It has done so to date in spite of a forced shut down due to lack of coal and the usual difficulties attending a company in court litigation.



THOMAS WARNER

Thomas Warner, Dean of Papermakers

Mr. Thomas Warner, Oregon City, Oregon, inventor of "Warner's Patent Equalizer" may well be called the dean of western papermakers. With nearly sixty years practical experience as a papermaker, being well over the three score and ten limit, he is still actively engaged as paper expert with the Crown Willamette Paper Co., at their West Linn plant.

Today he is as active as many men little more than half of his age, and is still full of new ideas on paper-making. He came west in 1878 to Licks Mill, California, from Middleton, Ohio, to run a paper machine, and a year later went to work for the California Paper Co. at Stockton, Calif., as machine tender, on one of the two machines in the mill. About thirty-five years ago he came to Oregon City, being, as previously stated, still in active service with close to fifty years experience with the Crown Willamette Paper Co. In 1917 Mr. Warner obtained his patent for this equalizer, later obtaining his Canadian patent, and has been in "John Bull's" domain installing his machine.

To Mr. B. T. McBain, pulp and paper specialist, of Portland, Mr. Warner gives much credit for his equalizer invention. Mr. McBain at that time was mill manager of the Crown Willamette's West Linn plant and gave Mr. Warner every encouragement.

Mr. Warner has always been greatly interested in his work as a papermaker, and can describe with accurate details the first Bertram machine he worked on in eastern Canada in 1869, he being then a boy of 15 years of age.

Swalwell Speaks at Hoquiam Chamber

W. H. Swalwell, auditor of the Grays Harbor Pulp Company, addressed the Hoquiam Chamber of Commerce Friday, Nov. 25, on the pulp industry and how it might affect Grays Harbor.

Cost Finding and Its Purpose

By GEORGE V. WHITTLE*

THE only purpose of any manufacturer is to run his plant to produce a product of such quality and at such cost that it can be sold in a competitive market at a price which will give a fair return on investment and for the risk taken in manufacturing. This being so, then it is quite obvious that he should know what the costs are which enter into the product in order to establish a selling price which will bring the necessary margin of profit.

The term "Cost System," to some executives, only indicates or means the office or clerical department necessary for the proper keeping of the accounts, the reports on which he gives no real consideration.

A control of the manufacturing operations is the result of a carefully designed and properly kept Cost System. Such a system will disclose waste, accidents, lost time, product below standard and causes therefor, production man hour, by the day, week or month, depending upon product and requirements. Many manufacturers, too often, learn too late the causes entering into a fatal financial result.

An Example

The writer has in mind where a bookkeeper had been preparing a monthly production cost and sales report showing an average loss of approximately \$5,000.00 per month for a certain year, and the company's auditors discovered an average loss of \$9,000.00 per month, owing to the fact that the statement prepared by the bookkeeper did not actually tie up or agree with his records. Had the officials known this during the year, they could and would have saved themselves thousands of dollars by closing down or making drastic changes in their manufacturing operations.

Costs must be supported with complete analysis and in complete agreement with proper cost finding methods and the main records or controls.

Plant to Office

To have complete financial statistics, the cost system should be developed from the plant to the office and not, as is the case with many systems, from the office to the plant. The superintendent is the one man who should have first consideration, for he is the practical man and must be kept in touch with his costs for the reason that responsibility rests upon him for production as relates to quality, amount and costs. The cost accountant and the superintendent should work hand in hand as it is most important that the superintendent know currently the production of each department, or operation compared with the number of employees, lost time, waste, and the reasons therefor.

In other words, put science into the business. The science of business is the actual knowledge of facts (not estimates) as they relate to plant location, plans, raw materials, labor, marketability and consumption, the analysis of the trend of times in the financial world

and the application of such knowledge to production and sales through efficient organization and management.

The volume of production from year to year is not always constant, this being so it is apparent that the volume of production in relation to the capacity of the plant has as much to do with determining what expenditures are to be included in the cost as has the amount of the expenditures themselves.

With a mill running constantly at normal capacity, the determination of production costs is more or less simple, but as soon as production varies the determination of costs would appear more difficult, and it is at the time of variation in production that the correct determination of production costs is most vital, especially when such variation is caused by the condition of the market.

To Determine Selling Price

Selling prices cannot always be ascertained by using cost records. For instance, the cost of a product manufactured below normal production would necessarily be higher than the cost would be above normal or on maximum production. The following table will illustrate what is meant:

Table "X"
Determination of Mill Burden Rates

	Normal	Cost Per Hour	25% of Normal	Cost Per Hour	200% of Normal	Cost Per Hour
Mill Expenses—						
Constant	\$24,000.00	\$0.30	\$24,000.00	\$1.20	\$24,000.00	\$0.15
Variable	8,000.00	.10	2,000.00	.10	16,000.00	.10
Total Expense	\$32,000.00	\$0.40	\$26,000.00	\$1.30	\$40,000.00	\$0.25
Total Hours	80,000		20,000		160,000	

Table "Y"
Costs and Sales Prices

	Normal	25% of Normal	200% of Normal
Raw Material	\$1.00	\$ 1.00	\$1.00
Labor (8 Hours)	3.50	3.50	3.50
Mill Burden (8 Hours) @ .40—3.20	@ 1.30—10.40	@ .25—2.00	
Total Unit Cost	\$7.70	\$14.90	\$6.50
Administrative and Selling 5%	.38	.75	.32
Profit 10%	\$8.08	\$15.65	\$6.82
	.81	1.57	.68
	\$8.89	\$17.22	\$7.50
Total Operating Hours	80,000	20,000	160,000
		Idle Time	Overtime
		60,000 Hrs.	80,000 Hrs.

Table "Z"

Division of Cost Between Constant and Variable	
Material	\$1.00
Labor (8 Hours)	3.50
Variable Burden (8 Hours)	.80
Total	\$5.30
Constant Burden (8 Hours)	2.40
Total	\$7.70

The items of constant mill expense as shown in statement "X" includes such charges as taxes, insurance, superintendents, watchmen, depreciation, and such other expenses made necessary in keeping up the organization and the mill in running condition.

The item of variable mill expense includes such

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charges as vary with amount of production, such as operating supplies and expense used in production.

It is clearly set forth in statement "Y" the reason that idle time should not be part of the cost for the purpose of determining selling price. Sales prices should be based on a normal output which might be say, 80% of capacity. Of course, it is well known that all expense incurred, eventually finds its way to the profit and loss statement, nevertheless, idle time should be reflected as a separate item in order that it might be brought forcibly to the attention of the chief executives.

Idle time and waste are perhaps two of the worst enemies of the manufacturer, and should be watched and guarded against daily. Such conditions can only be disclosed by the strictest adherence to proper cost finding methods.

Statement "Z" purports to show total unit cost, which is \$7.70, of which \$5.30 is the variable cost and \$2.40 constant burden. The purpose of this statement is to ascertain how much shrinkage in sales price could be borne and the mill still operate. Therefore, if the finished product costs the mill \$5.30 per unit, any sales price obtained over and above that figure would naturally reduce the loss or the constant burden.

A statement such as "Z" would inform the chief executive as to whether the current sales price would warrant or justify the operation of the mill.

Another article by Mr. Whittle dealing with some of the specific cost problems in pulp and paper manufacture will appear in an early issue.

Northwest Has New Tag Factory

The tag and label business of the Northwest is undergoing a new development with the installation of the Northwest Tag and Label Company, of Seattle, which was scheduled to begin full production about December 12. This will be the only company of its kind in the state of Washington and one of the largest and most up-to-date on the Pacific Coast, operating on the same scale as the large eastern concerns of the sort.

Every phase of tag manufacture will be handled in this plant, from the cutting of the raw board to the shipping of the finished article printed and strung.

The company is financed entirely by Seattle capital and will use Northwestern board purchased in Port Angeles almost exclusively. The factory is housed in a one-story, well-lighted stucco building of 3800 square feet floor area, located at 123 Western Ave. W. With the installation of the full complement of machinery the plant should be ready for immediate operation upon a full-time basis.

The equipment to be installed includes machinery never before introduced on the coast. The bulk of the work is done by an automatic tag machine, which turns out the finished product from the roll of board in one operation. The board is fed through the machine from the roll and can be printed on both sides in two colors with paper patches attached. The corners are cut, the holes reinforced with metal eyelets, and the tags are cut off singly in gangs or sheets as desired. The finished product, printed and colored, can be turned out at the rate of 350 a minute.

Work in smaller quantities will be handled through auxiliary machines. The patching will be done by two patching machines, operating at the rate of 60 tags a minute. The tags will be strung by two stringing machines, one of which puts in the loop, the other the

knot. The printing will be done by two automatic Miller feeders, with 28x12 open presses, a 34-inch paper cutter and a drill press. An eyelet machine and two corner machines are also included.

The board will be cut into rolls of the size required for the tag by a Langston heavy board slitter and re-winder. In operation the plant will employ ten workmen and will have a maximum capacity of 300,000 tags a day.

Instead of anticipating competition from eastern manufacturers, Mr. B. H. Gilman, general manager, is going after his share of the local tag business and that of the Northwest, which has hitherto been handled largely through purchases from eastern concerns, or the buying of blank tags requiring a separate printing.

"We do anticipate any trouble from eastern competitors," said Mr. Gilman. "We expect to offer our merchandise upon the triple basis of quality, service and price. We expect to place on the market tags of the highest quality made, and as the eastern manufacturer must ship his tags from the east we can offer them at a lower price. Our strong point in selling, however, will be service. We can make deliveries in three days instead of three weeks. Because of weight the eastern order generally comes by water. The company expects to supply tags for all local purposes of merchandising, marketing and shipping, as well as dyed-out products such as gum labels, stickers and seals. Business will be solicited in Washington, Idaho, Oregon and Montana, through regional representatives working from the Seattle office."

Mr. Gilman has been in the tag business on the Pacific Coast for a number of years. He was formerly associated with the Tag Products Co. and the Boyer Tag Co., both of Portland, Ore.

Shirt Envelopes Prove Popular

The Seattle-made machine for the manufacture of envelopes for laundered and starched shirts is proving popular throughout the country and is even becoming the subject of export. This machine was designed from plans made by the Ridgway Lithograph Company of Seattle, which was the first concern to install it.

This machine replaced the old method of folding shirts around a stiff cardboard by providing an efficient envelope with a cardboard back and a transparent paper front, upon which the name of the laundry is printed. The work is done entirely in one process, as the machine operates from two rolls, one of cardboard, one of paper, printing, cutting, gluing and counting, all at the rate of 20,000 per hour.

At the present time the Ridgway company not only supplies the local laundry trade, but it has placed these envelopes in the laundry service of the larger Pacific liners, including the Admiral line, as well as on the warships of the Pacific fleet.

Newsprint Continues at \$65 Per Ton

Newsprint manufacturers have announced that no reduction will be made in the price of newsprint during the coming year, according to a report from Consul E. Haldeman Dennison, Quebec. Producers evidently anticipated that consumption of newsprint will show the usual annual increase during 1928. The recent amalgamation of newsprint selling agencies had for its principal purpose the stabilization of newsprint prices and the creation of a better balance between output and consumption.

The Trend in Christmas Boxes

OBSERVATION of the counters of Western department stores and gift shops this Christmas time impresses one with two facts of significance: first, that many articles never before offered for sale in boxes are boxed for the holiday trade of the current year; second, that the popular taste in Christmas boxes is changing, with a decided trend toward greater artistry in color and design, and, to those interested in the industrial growth of the Pacific Coast, there's an additional point of interest in the fact that this year's Christmas boxes are more than ever of Pacific Coast manufacture from pulp to box.

It was not long ago that articles not ordinarily boxed were thought unworthy of boxing for the Christmas trade. Any boxing done was undertaken within the home of the donor, after a time-honored procedure. A pile of shoe or suit boxes were obtained from neighborhood storekeepers, the gifts placed in them, the crevices stuffed with tissue paper in cases where the package was to be shipped and the whole package wrapped in paper embellished by a poisonous gaudy design of green holly and red bells. A "Merry Christmas" card was added, and the picture was complete.

Separate Boxes

First changes came with the introduction of separate boxes for the gift. The articles so boxed were for a long time limited in number: handkerchiefs, neck ties, hosiery, and occasionally stationery. The traditional holly design never varied, except for the stamping of the firm's name on the lid of the box in great blatant letters. The holly design, with minor variations, became as established a seasonal symbol as colored eggs or fire-crackers.

Since the boxing of gifts was undertaken on a large scale the practice has increased until each year brings an increasing list of articles so offered. From neck ties and hosiery the transition to other items of haberdashery was easy, and from that point the course broadens to include an endless variety. Umbrellas, bath salts, ornamental candles are now offered in attractive boxes made to order for the product. Even hardware stores capitalize the holiday time by offering high grade steel saws in tastefully decorated boxes.

Haberdashery Leads

As might be expected, in this year's display haberdashery still leads the list in boxed articles. Practically every item in this field is boxed this season, with a decided increase over last year in the number of articles intended for feminine recipients. Specially made boxes for lingerie sets are made by Pacific box-makers to a greater extent than ever before. Even articles such as belts and garters which are often boxed at all seasons are offered at Christmas time in specially designed gift boxes. There is a decided increase this year in wearing apparel boxes with glassine tops.

Boxing in 1927 has been extended to many new fields, to any, in fact, which include articles acceptable in any way as gifts. A list of Christmas boxes ordered by a chain of eight large Pacific Northwest stores includes specially made containers for umbrellas, gowns, book-ends, purses, corsages, candles, babies' rattles,

pin cushions, men's collars, and bath salts. The introduction of ornamental boxes for bath salts, which were formerly offered in glass jars or sachet bags, is a Pacific Coast innovation originally undertaken by a Seattle firm. The box contains a row of glass tubes full of salts of various shades.

A further increase of boxing is seen in all fields of sweetmeats. Cookies and small cakes, formerly sold in bulk, are now boxed. The most significant development of this year's box trade in that field is the increasing variability in the size of the boxes. Candy, once sold in three or four standard sized containers, now ranges from dainty four-ounce containers of a distinctive sweet to great chests with a framed picture as cover, holding as much as nine or ten pounds of chocolates.

Design Is Important

It is only in minor fields that any examples of decrease of boxing are apparent, and these are due more to change in public taste toward the articles involved rather than to any disadvantages of boxing. This decrease is noted largely in the number of cheap curios or "souvenirs" generally sold to tourists, but often sent at Christmas time to friends in other cities. Turning now to a consideration of tastes, we find a decided change, indicating a more discriminating public, one that demands artistry as well as convenience. Utility has ceased to be the only consideration in box making. Today the greatest care is taken to design boxes that will move the goods. Probably the most significant feature of the trend in design is away from the old-fashioned holly design, with a greater tendency toward simple good taste relieved at times by the quaint or bizarre.

Holly Losing Out

"The chief reason for the drift away from the holly design has been the difficulty of moving such goods at any other season," says one prominent box-maker of the Northwest.

"A special design for a season always has its disadvantages. Some stores are using boxes of a type suitable to any time of year, adding a holly wrapper at Christmas time. If the goods are not sold during the season the wrapper may be removed."

Where the holly wrap has survived it has been modified, generally by working it in as a background for another design. This season's most distinctive successor to old holly is the quaint atmosphere of the old English Christmas, achieved through bright pictures reminiscent of Lamb or Dickens, in which the old-fashioned stage coach or fire-side group are standard figures. With the combination of old English lettering this type of design has proved very effective.

Another departure is seen in the tendency to omit the seller's name, except in cases where a certain distinctive line is offered by one house. Here the lettering has become subordinate to the general design with which it harmonizes. There is also a growing tendency to standardize lettering. Candy boxes for the holiday trade appear in greater numbers than before, and no longer are classed as mere utility containers.

In fact, manufacturers of the Coast are turning out candy boxes so elaborately made that the candy filling seems to be of secondary importance—added as an afterthought. Beginning with the introduction of containers which, instead of being discarded, might be put to further use, the utility of candy boxes has increased until the box is frequently worth more than the enclosed candy.

This year we find, together with combinations of candy with novelty handkerchiefs and powder puffs in specially made boxes, the development of boxes which may be used for various purposes—sewing boxes, vanity cases, boxes for the boudoir. A Pacific Coast establishment has been so successful with the development of this year's novelty candy box that a substantial order was purchased by novelty stores for sale outright as dresser or cosmetic boxes. From this year's Christmas display we see fields for the paper box which were formerly unknown. What are the factors behind this development?

Importance of Time

The first reason would probably be found in the increasing role that service plays in modern business, sales with keen competition. At first thought the marketing of a small item of merchandise in a separate box seems a needless frivolity. When we consider the overwhelming per cent of Christmas orders that are shipped, however, boxing appears logical and efficient—the only way, in fact, in which the seller can escape a deluge of requests for boxes to fit the gift.

Another talking point of the efficiency of the Christmas box is the elimination of hand contacts. The pre-Christmas season is necessarily one in which all stocks are displayed, and rummaged over by the prospective purchasers. This pawing over at the counters would be decidedly detrimental to the charm of the merchandise displayed unboxed, hence this year's boxes, which allow the article to be seen through a sheer cover without disturbance through inquisitive fingers. An additional point in favor of the box is found in the fact that it provides a definite unit of purchase, solving the doubt in the purchaser's mind as to how much he ought to buy as a suitable gift.

"If tubes of bath salts or ornamental candles were displayed for sale unboxed it would not occur to the average individual to make of them a gift for a friend, and if it did he would not know what number to buy," says a manager of one of our leading department stores. "When the candles or bath salts are put up in an attractive box, however, they gain a distinction that makes them appear as a desirable unit gift."

More Western Boxes

Pacific Coast box-makers report less Eastern competition this year than before. This development is due to the growing realization of the buyer that Coast products were in every way the equal of the Eastern, and far more certain of delivery when desired.

"Local buyers are realizing that our houses can supply all their wants, with better service as well," declared one Pacific Coast box-maker. "They were formerly intrigued by Eastern salesmen who appeared at slack seasons with lists of elaborate wares. Orders were given, but when trade revived the Eastern man was so busy with his own territory that he could give little attention to his Western customers."

An illustration was cited of a Seattle gift store which had ordered a quantity of jewelry boxes from an Eastern house for last year's Christmas trade. The boxes

arrived—some time in January. This year the same buyer placed his order with a local plant.

This year's trend in Christmas boxes is only one phase of the possibilities awaiting the Pacific Coast maker of paper products. The makers of fancy boxes have beaten the outside competitor at his own game, not by invoking local sentiment or economic pressure, but by offering goods on a more attractive basis than outside rivals. Their example is encouraging to other branches of the field which still labor under this disadvantage.

Bloedel-Donovan Project Not Abandoned

Bloedel-Donovan Lumber Mills, at Bellingham, Washington, have no intention of abandoning their proposed pulp and paper mill, according to a direct statement authorized by that company to Pacific Pulp & Paper Industry.

Following the announcement last spring that Bloedel-Donovan proposed to build a pulp and paper mill in connection with their extensive lumber operations at Bellingham, it was stated that two difficulties in connection with certain harbor rights and water supply had to be overcome. These obstacles put aside and no further announcement made gave rise to a rumor that the project was to be abandoned.

"We are not giving up the idea of pulp and paper manufacture," Mr. J. H. Bloedel stated. It was intimated that progress had not been as rapid as originally hoped for and that some problems still remained to be worked out, but thought of abandoning the idea was emphatically denied.

The original announcement, made in April, 1927, called for a 110-ton pulp and paper mill, using the soda process.

No Change at Millwood

Reports concerning the proposed expansion of the Inland Empire Paper Company at Millwood, Washington, near Spokane, are "very much exaggerated," according to Mr. Waldo Rosebush, manager, in a special interview with Pacific Pulp & Paper Industry.

An announcement appearing some months ago in the Spokane papers was given considerable space and caused some comment in the trade. Mr. Rosebush at that time admitted that his company had, as a matter of course, been studying the problems in connection with expansion, but denied that anything immediate in the way of construction was contemplated. Despite this statement the trade has looked for further announcement.

"The entire industry at present is rather unsettled," Mr. Rosebush said. He declined to discuss any proposed changes or developments contemplated by his company, except to point out that immediate development of the hydro-electric project and other extensions, developments totaling about \$2,000,000, were only in the nature of routine studies.

"There is nothing new at this time," he said.

Moving Damaged Stock

George H. Page has leased the three-story building at N. 1017 Washington, and is moving the damaged stock from the B. C. Ewing Paper company's building on the Spokane International railway right of way to the Washington street location. The building leased by Page was formerly occupied by Woodward & Stein, sheet metal workers. Moving the stock to the new location will take about six weeks, it is estimated.

T-R-A-D-E - T-A-L-K

Devoted to the Paper Trade of the Western States



A. N. AGEE

Eugene Branch Serves Southern Oregon

As a result of the recent establishment of a branch of the Zellerbach Paper Company at Eugene, Southern Oregon, Coos Bay and Klamath Falls territory are getting quicker and better service than when these districts were served from Portland, according to A. N. Agee, manager of the Eugene division. Opening of a branch house in Southern Oregon has been considered for some time, and a study had been made of several cities. Eugene was selected because of its central location and its excellent transportation facilities.

"We are now carrying fine paper, printers' supplies, coarse paper roofing and miscellaneous items," said Mr. Agee. "Stationery notions are to be added shortly."

The manager of the Eugene branch, for several years salesman for the Portland division with headquarters in the former city, was formerly connected with different Portland paper houses, including Blake, Moffitt & Towne, the Pacific Stationery Company, and Glass & Prudhomme. His promotion as manager of the new branch came simultaneously with the announcement that the Eugene division had been created.

The new one-story building housing the Southern Oregon branch is of concrete, 50x150 feet, and has been constructed so as to carry an additional story should expansion warrant. A mezzanine floor is a feature. Located directly on the Southern Pacific tracks, the branch has unsurpassed shipping facilities.

A. W. P. Opens Seattle Office

The American Writing Paper Corporation has opened a branch office at 422 L. C. Smith Building, Seattle, under the management of Mr. E. P. Wesson, formerly of their Philadelphia office. This office, under the direction of the central office of the coast at San Francisco, will handle the trade of the four Northwest states.

This company, with headquarters in Holyoke, Massachusetts, obtains most of its paper from the rag market. What pulp it uses is chiefly from eastern sources. It deals entirely with the jobbing trade, handling chiefly the finer grades of ledger and bond paper.

In general, Mr. Wesson reports business in the East as about normal, with mills operating on an approximately full-time basis.

Two Westerners at National Paper Trade Meet

Charles Kahn, secretary of the Pacific Coast Paper Trades Association, and Harold Zellerbach, of the Zellerbach Paper Co., San Francisco, apparently were the only two Pacific Coast men who attended the National Paper Trades Association fall meeting held at Chicago on October 24-25. J. L. Murray, manager of the Mutual Paper Corporation, Seattle, had expected to attend, but pressure of other business prevented the trip. The registration at the fall meeting approximated 500.

Two of the subjects interesting to the paper trade at large were the discussion of efforts made to bring back former postal rates and thereby increase the use of direct mail advertising, and the carton method of packing fine papers. The subject of storing and handling cartons was discussed and demonstrations showing the uses and abuses of cartons were made. Opinion in general seemed to favor the carton pack for effecting economies in several respects.

Sprinkler Douses Carter-Rice Fire

Prompt action by an automatic sprinkler system saved the Carter Rice Corporation from a probable serious loss when a fire of unknown origin broke out in its Seattle warehouse on the afternoon of Saturday, November 5. The warehouse and office were deserted for the afternoon, and the fire was not discovered until its smoke had drifted into an adjoining building. By the time the fire department had arrived, however, the sprinkler system had the fire under complete control. Damage was limited to a pile of chipboard, which was damaged to the extent of about two hundred dollars.

Too Many Small Orders

The increase in the number of small orders from retailers, with the frequent deliveries attendant upon them, is responsible for a large cut in the yearly profits of the paper jobber, says Mr. J. L. Murray, manager of the Mutual Paper Corporation, Seattle.

"A short time ago about 25 per cent of our orders were less than \$10 in amount," Mr. Murray points out. "Today 60 per cent of our orders are below that price. Instead of bringing in a profit an order of this size

really entails an average loss of about 30 cents. When paper jobbers balance their books at the end of the year they cannot understand the cut in their profits, which is largely attributable to this small and frequent buying. Many printers expect an average of four small deliveries in one day."

This situation has been brought about by an increase in the number of small buyers, a general decline of buying in all lines of merchandise, and shortsighted competition among the jobbers themselves. An organization of paper jobbers to agree upon the details of the trade, with the establishment and maintenance of a normal ratio between profitable and unprofitable orders would be the remedy, says Mr. Murray.

Increase of the margin of profit on small sales, placing of salesmen on a commission basis, that discourages the small order, and motorcycle deliveries are steps taken by other local jobbers to combat this condition. All agree that the retailer, instead of keeping a representative stock on hand, now buys from hand to mouth, expecting the jobber to account for every small order received.

Sees 1928 Prospects Brighter

Shortsighted competition in the wrapping lines is cutting margins of profit very close, says Mr. C. O. Dickie of the Paper Mills Agency, of Seattle. The present extent of competition further tends to prevent the development of a marketing system upon a basis of the true value of the merchant's wares.

"Jobbers could get better prices if they sold more on quality instead of trying to secure orders for the cheapest grades of paper in the largest bulk possible. It is impossible to develop talking points in favor of the poor grades of paper that are now being marketed like bread and butter. More effort should be spent in showing the advantages of higher grades of paper lines."

Aside from this, the outlook is good for 1928, says Mr. Dickie. There are no indications of a sudden boom in the paper trade, but rather a promise of a steady and healthy progress during the coming year.

"Our business shows a healthy increase over that of last year, and as the paper trade is one field of enterprise that is not overworked here on the Coast we can anticipate a healthy development. Additional territory has been taken in for Northwestern paper in the last year. Besides taking care of local business the Northwest is shipping pulp and paper products back east, and are already finding markets in the Pacific islands."

Add-Wrap Distributed Through Jobbers

Add-wrap, the wrapping paper with the name of the dealer printed on it, has been placed in the hands of paper jobbers for marketing. This is a decided change of policy, as it has formerly been marketed entirely through its originator, Mr. C. E. Rumelin of the Pacific Northwest Paper Mills, Inc., of Portland, Oregon.

The paper is offered in all grades of wrapping stock, with the name of the retailer appearing in various forms. Seattle jobbers report that Add-wrap is moving fairly well under the new system of distribution.

Mutual Paper President Vacationing

Mr. Ralph Miller, president of the Mutual Paper Corporation of Seattle, is making a two-weeks' pleasure trip through the California cities, accompanied by his sister, Miss Laura Miller.



C. W. BROWNE

Packer-Scott Opens Medford Branch

The Packer-Scott Company, Portland, will open a branch supply house at 309 South Front Street, Medford, Oregon, December 15, according to Vernon C. Scott, vice-president. C. W. Browne, for the past six years city salesman for the firm, will be resident manager of the new branch.

"Decision to make Medford our Southern Oregon headquarters was reached after a thorough study of the trade territory with a view to securing the best point of distribution for our products," said Mr. Scott. "Not only has the city itself good possibilities, but the surrounding towns, particularly Klamath Falls, are developing rapidly. We will also be in a position to serve Northern California towns to advantage."

"Arrangements have been completed to carry a \$15,000 stock, and a carload each of wrapping paper and bags are being shipped from the Hawley Pulp and Paper Company direct to the new branch. We handle only Oregon-made products. The 50x100 foot one-story concrete building we will occupy is served by a spur track, and plans have been made to serve a part of the trade by truck. The branch will be operated independently of the Portland, Salem and Eugene houses, and it will be our purpose to give Medford territory as complete a stock of the coarse paper line to draw upon as can be secured in Portland or San Francisco, without the expense of shipping from the larger cities."

Mr. Browne, the new manager, was formerly connected with the Crescent Paper Company which was absorbed sometime ago by the old Blake-McFall Company. He continued with this firm for a year before taking a position with Packer-Scott. Previous to his entrance into the paper business, Mr. Browne was Eastern Oregon salesman for Armour & Company, with headquarters at The Dalles.

More Trade Talk on Page 44

*Set-up
Folding
Corrugated
Solid Fibre*

BOARDS and BOXES

A department for interests allied
with the pulp and paper industry

*Board
Mills and
Paper
Converters*

Box-Makers Plan 1928 Convention

West coast manufacturers of paper boxes are united in their determination to make the 1928 convention of the Pacific Coast Paper Box Manufacturers an outstanding success, according to Carl R. Schmidt, San Francisco, coast president. The convention is to be held at Del Monte in June.

Mr. Schmidt recently spent some time in Seattle, Portland, and other cities of the Pacific Northwest and on his return reported that he believed the attendance from the north would be larger than ever in 1928. Mr. Schmidt does not agree with recent opinions of some paper box men that the northerners will ask for the 1929 convention.

In charge of the meeting, as chairman of the convention committee is William J. O'Donnell of the A. Fleischhacker Co., San Francisco paper box manufacturers. The secretary of the committee is Will Kewell of the Western Paper Box Co., Oakland. And of course R. H. "Bob" Ohea of The Paraffine Companies is chairman of the reception committee. Bob says he is not a paper box man, but just the same he is drafted every year to see that the paper box men have a good time at the convention. Gus Trost of the A. Fleischhacker Company, is chairman of the golf committee.

All From San Francisco Bay

All the members of the committee in charge of the convention activities are from the San Francisco Bay region. The complete roll follows:

GENERAL COMMITTEE—William J. O'Donnell, chairman; Will Kewell, secretary.

CHAIRMAN'S EXECUTIVE COMMITTEE — Fred W. Kewell, chairman; W. H. Thomas, Carl R. Schmidt, Ralph York.

FINANCE—R. J. Gruenberg, chairman, L. A. Schooley.

PROGRAM—Ralph Comstock, chairman; Richard Schmidt, Jr., D. H. Patterson.

INVITATION—Louis Thiebaut, chairman; Fred Kewell, Jr.

ENTERTAINMENT—E. J. Farina, chairman; Jack Raisin, Louis Raisin, Dave Sahlein.

GOLF—Gus Trost, chairman; R. H. Ohea, Fred W. Kewell.

HOTEL—Edgar Stern, chairman; S. F. Higgins.

RECEPTION—R. H. Ohea, chairman; H. Zellerbach, V. Zaruba.

TRANSPORTATION—W. J. Warren, chairman, Jil Thiebaut.

PRESS—Secretary Hugh Peat.

Practical Program

It is Chairman O'Donnell's idea to make the program of more practical value than programs of conventions held in the past, so that members can profit materially from listening to the papers. It is proposed that the subjects shall be allotted to practical men engaged in each department, from the manufacture of the raw material, pulps, down to the completed carton.

The program will embrace a talk by some individual fully conversant with every operation connected with the manufacture of pulp board. Other talks will follow, in natural sequence, on cutting and creasing, die making and printing, down to gluing and packing for

delivery of the finished product. At every stage, all members will have an opportunity to discuss freely each principle or thought presented and will thus be enabled to receive, at first hand, information from experts on each particular phase.

Denver Box Firm Swept by Fire

Fire of unknown origin caused a severe loss to the Deline Manufacturing Company, paper box manufacturers of Denver, on Nov. 14, just at the height of the Christmas rush. The fire started in the basement and had gained such headway before being discovered that the entire three stories were aflame in a short time. The most severe damage was in the cutting room and paper stock room. The loss has not been determined but is believed to be in the neighborhood of \$50,000. It is fully covered by insurance.

A most remarkable recovery was staged by the company. Within twelve days after the fire almost the entire force was back at work in a strenuous effort to get out contract work on time. A force of 100 mechanics and carpenters was employed night and day getting the plant in shape, repairing and building, installing new equipment and the like. Insurance adjusters were on the job removing all damaged stock, which, of course, could not be used in the high grade confectionery boxes. Operations were resumed with a complete new stock of both board and paper, secured on rush order from the Louis Dejonge Company of Chicago and the Colorado Pulp and Paper Company of Denver. Irving A. Deline, president of the company, is highly gratified at the help extended by paper firms and others who have made it possible to take care of the Christmas trade of the company.

Ridgway's Photo-Lithographing Machine

With the installation of a photo-lithographing machine the Ridgway Lithograph Company of Seattle has not only eliminated the necessity of relying upon eastern service in the production of high grade work, but it has been able to run on an over-time basis at a time when other makers of lithograph work are reporting a dull season.

This piece of equipment, the second to be installed on the Pacific Coast, is thoroughly up to date and places the Seattle plant in a position to turn out work which is the equal in every way of that of the eastern manufacturer. Before the installation of this equipment the company was forced to obtain from eastern establishments the plates necessary for its work, except when it wished to rely upon a slower hand process.

Floor space of 12x40 feet is devoted to the photographic part of the work, and is occupied by a photographer's room and two dark rooms for the development of the plates. The photographic equipment is mounted upon a steel rack about twelve feet long, and consists of a large box camera holding a 20x20-inch glass plate, facing a screen about four feet away. Two high-

powered reflectors turn a bright light upon the screen when the photograph is to be taken.

The artistic sketch is placed on the screen, and the photograph taken. The negative is then developed and a print made upon transfer paper. Prints are then taken and patched together upon a sheet of board in such a way as to cover an entire sheet with the least possible surplus space. The sheet is placed under a press plate and an impression made upon an aluminum plate through the action of the prepared transfer paper.

The plate is now ready for printing, which is carried out on modern up-to-date presses. A color separation is generally made, with an impression for each separate color. The plant also operates a two-color press, but owing to the time required to make it ready for work, only large jobs are undertaken on it. When the sheet is completely printed in the necessary colors, it is put through a stamping machine and the unprinted area stamped out. The scraps of surplus are collected and reconverted into fresh board.

Labels, lithographed cartons, and package inserts are handled by this process. A file of all plates made, numbered and indexed, is maintained.

"The operation of the new system has been entirely satisfactory," said Mr. C. E. Ridgway. "Before its installation we could not obtain the plates necessary for the best work without having them prepared in the East. Today we are handling all phases of our work within the plant, and are serving buyers throughout the Northwest and as far south as Los Angeles."

New Year Prospects Brighter

The paper box business on the Pacific should improve in 1928, says Mr. Will Culwell of the Keystone Paper Box Company of Seattle. Greater scope of purchasing power during the coming year is the reason assigned.

"From present indications based upon prevailing prices for Northwestern products there should be more money in circulation, with increased purchasing power of the individual. When people have more money to spend they not only buy more freely but they buy more of the higher type of goods, the kind of goods boxed for the market. The box trade was hampered during the past year by business depression which led to less buying of boxed goods and more buying in bulk for reasons of economy."

From Profits Reinvested

An example of sustained progress in Northwestern paper box-making is seen in the career of Harry M. Simmons of the Northwestern Box Company of Seattle. Mr. Simmons has been connected with this factory for the last twenty years, during which time its capital has grown to ten times its original sum. This increase has come from profits reinvested in the business and not from any investment of new capital.

Mr. Simmons is a pioneer figure of the Northwestern box business and one of its most distinctive representatives.

Outlook Better for Box Makers

The coming year holds promise of good business for the Northwestern makers of paper boxes, in spite of the customary slump attending the years of presidential elections, says Mr. C. E. Daugherty, secretary of the recently formed Seattle association of paper box makers, which includes all of the eleven local plants.

Consolidations of Pacific Coast board mills afford

the greatest hope for the relief of the western box maker in his struggles with eastern competitors, Mr. Daugherty believes.

"When the two rival companies existed they were loath to grant concessions to meet eastern competition. The merged company may retain the same position, but it is likely that their desire for sufficient tonnage to keep their plants operating on a large scale may lead them to make concessions to enable the western box maker to meet the pressure of eastern competition.

"In the last few years figures show that the Northwestern paper box factories, instead of installing new machinery and increasing their production, have been running far below actual capacity. With the development of new industries and the extension of paper containers to new fields this situation ought to be eased up, allowing an opportunity for further production."

Possibilities of further growth of Pacific coast box manufacturers were also seen by Mr. Daugherty through extension of markets to the Pacific islands.

"There is a potential market in the Philippines and Hawaiian islands waiting for a man with foresight who will go over there and establish contact. For a long time Seattle was handicapped by lack of direct steamship communication with the islands, and it was practically necessary to ship goods by way of San Francisco, but now steamship lines give Seattle the closer direct communication of the two cities."

The working out of the association has been satisfactory to all concerned, according to Mr. Daugherty. The members meet at luncheon every Thursday noon and discuss mutual problems.

Doing Well with Round Corner Boxes

The Deline Manufacturing Company, paper box manufacturers of Denver, have found a ready demand for their distinctive round cornered candy boxes as well as their odd shapes. All of these boxes are designed by Irving A. Deline, president of the company. The company caters almost exclusively to confectioners.

Gaylord, Inc., Develop New Box

Something new in the use of paper board has been developed by Robert Gaylord, Inc., fibreboard box manufacturers, according to Charles Baum, San Francisco, Pacific Coast manager. This is an "Air Way" box for shipping baby chickens.

Kraft troughs are built into the shipping box for water and feed for the chicks and the water containers have been known to stand for weeks without losing water except by evaporation.

The box is perforated for air and also is ridged to prevent crushing and crowding. The Gaylord company claims these ridges are a considerable saving in cost and weight over the wooden strips found on many other chicken containers.

Box Makers to Banquet

The annual banquet of the San Francisco members of the Pacific Coast Paper Box Manufacturers Association will be held Tuesday evening, December 20, at Marquard's Grill, Secretary Hugh Peat has announced.

Carl Schmidt Holds Golf Honors

Carl R. Schmidt, San Francisco, again topped his fellow craftsmen at golf on December 2 when the San Francisco bay members of the Pacific Paper Box Manufacturers Association held a tournament at the Lake (Turn to page 43)

*New Types
New Models
New Machines*

EQUIPMENT

Manufacturers of, and dealers in, equipment used by pulp and paper mills, board manufacturers, converting plants, paper merchants, or any other branch of the industry may make their announcements in this department.

*New Dealers
New Branches
Appointments*

Allen to Head New Departure Coast Office

The New Departure Manufacturing Company, Bristol, Conn., announces the establishment of a branch engineering office at San Francisco. Elliott A. Allen has been appointed resident manager with offices at 1812 Van Ness avenue. By this new arrangement the Pacific Coast will be served in an engineering capacity as well as sales capacity for the New Departure product.

Mr. Allen was graduated from Worcester Polytechnic Institute in 1908, and since then his work has been continuously and intensively with anti-friction bearings. His wide technical experience ably fits him to advise regarding the successful application of ball bearings to machine tools, electric motors, paper and pulp machinery, oil wells, logging and lumbering equipment, tractors, trucks and automobiles.

Sadtler Heads Swenson Evaporator

Mr. Philip B. Sadtler, formerly vice-president of the Swenson Evaporator Company, a subsidiary of Whiting Corporation, Harvey, Illinois, has been elected president of the Swenson Evaporator Company, to succeed the late Mr. N. S. Lawrence.

Mr. Sadtler has been with the Swenson organization for about twenty years and during this time has handled a wide range of chemical engineering problems involving evaporation and heat transfer processes. He is a graduate of Massachusetts Institute of Technology and holds membership in various scientific societies and clubs.

Wins Simonds Economic Essay Contest

William B. Turner, Twin Falls, Idaho, is the winner of the principal prize of \$1,000, in the fifth annual economic essay contest conducted by Alvan T. Simonds, president of the Simonds Saw and Steel Company of Fitchburg, Mass. A large number of essays were filed in this contest, which fact indicates an encouraging advancement in the study of economics, a subject which Mr. Simonds seeks to advance to a more popular basis throughout the country.

The sixth annual essay contest conducted by Mr. Simonds closes on December 31 and announcement of the 1928 contest with the subject will be made within a few weeks.

A. G. McDonald Makes Tour of Mills

A. G. McDonald of the Pacific Sales Company, Portland, made a trip through the Pacific Northwest, during the last three weeks in November, that took him to practically all of the operating mills. He also went into the Canadian territory, calling on the British Columbia mills that have offices in Vancouver. The Pacific Sales Co. represents the Draper Felts on the Coast and also handles the Cheney-Bigelow Wires. Mr. McDonald reported a fair spirit of optimism prevailing at the mills with the new year approaching.

Byron-Jackson Making Paper Mill Pumps

The Byron Jackson Pump Mfg. Co., Berkeley, Calif., has developed a complete line of stock pumps for paper mill service. The company claims that these pumps are capable of handling the heaviest stocks with good efficiency, and that the pump design insures complete reliability. These pumps are known as their Type KS. The company is in a position to furnish centrifugal pumping equipment to meet all conditions which exist in the paper manufacturing industry.

Bird Pulp Screens Used on Kraft

Four of the country's newest kraft mills, of which the Longview Fibre Co., at Longview, Wash., is one, have all adopted Bird pulp screens, according to the Bird Machine Co. The Advance Bag & Paper Co., at both its Maine and Southern mills, has adopted the Bird screen, as well as the Bogalusa Paper Co. and the Brown Paper Co. mills. Among the older mills using the Bird pulp screens are the Thilmany Pulp & Paper Co. and the Southern Paper Co.

George Frogner with Equipment House

Woodbury & Wheeler, 55 Second St., Portland, Oregon, are to represent Gibbs-Brower Co., Inc., paper and pulp mill brokers of New York, according to an announcement by Ogden Brower, Jr., president of the latter company.

Mr. George A. Frogner, formerly electrical engineer with the West Linn plant of the Crown Willamette Paper Co., and for many years associated with the pulp and paper industry on the Pacific Coast, will be in direct charge of the pulp and paper work.

With Sidney F. Woodbury, president of Woodbury & Wheeler, Mr. Frogner recently spent five weeks in the East. They made a general tour of the industry in the East, calling on many of the manufacturers of equipment.

"We found in practically every instance that manufacturers have had their eye on the Pacific Coast for many months," Mr. Woodbury said. "They have been impressed with the fact that the old mills seem to be working at capacity, many new mills are under construction and still others are 'on paper'."

"We have made arrangements with a number of manufacturers in the East to represent them on the Pacific Coast. With Mr. Frogner in our organization we have a man who is qualified by technical experience and personal acquaintance with the pulp and paper industry of the Coast to perform a service for manufacturer and mill alike."

Chemical Plant for Tacoma

The Great Western Electro Chemical Co. has announced intention of building an electro-chemical plant for the manufacture of liquid chlorine and other chemicals used in the pulp and paper industry, at Tacoma, Washington. The initial investment is given at \$500,

000, with a probable development in four or five years to a plant worth \$2,000,000 to \$3,000,000.

The company has extensive salt works near San Francisco and has an electro-chemical plant at Pittsburg, California, about thirty miles from San Francisco. It is at present supplying a large percentage of the chemical needs of the Pacific Coast pulp and paper industry.

According to announcement the company will build on the tideflat industrial district at Tacoma. Construction is expected to begin in March.

Boards and Boxes

(Continued from page 41)

Merced Golf and Country Club. Mr. Schmidt is the 1927-28 association golf champion, as well as president, having won the title at the Del Monte convention last summer.

At the tournament on December 2 prizes were awarded to the first, ninth and seventeenth entries. The prizes were golf balls and were won by Mr. Schmidt, C. C. Cole, Fred Kewell, Richard Schmidt and L. Raisin.

The score follows:

	Gross	Hdp.	Net
Carl Schmidt, Schmidt Lithograph Co.....	91	14	77
J. A. Benedict, Western Paper Box Co.....	91	28	79
E. F. Wuthman, Schmidt Lithograph Co.....	104	24	80
H. Zellerbach, Zellerbach Paper Co.....	102	20	82
Ed Farina, National Paper Products Co.....	107	24	83
H. J. O'Brien, Fleischhacker Paper Box Co.....	109	24	85
A. B. Korbell, Raisin & Zaruba.....	97	12	85
C. C. Cole, Illinois-Pacific Glass Co.....	104	18	86
Fred Kewell, Western Paper Box Co.....	113	24	89
Richard Schmidt, Schmidt Lithograph Co.....	115	26	89
W. H. Thomas, Fibreboard Products, Inc.....	101	12	89
J. B. Gilman, Gilman-Pettersen Co.....	116	26	90
M. Devers, Fleischhacker Paper Box Co.....	116	26	90
Jack Raisin, Raisin & Zaruba.....	116	25	90
Gus Trost, Fleischhacker Paper Box Co.....	119	26	93
D. Sahlein, Boxboard Products Co.....	129	35	94
L. Thiebaut, Thiebaut Bros.....	121	26	95
L. Raisin, Raisin & Zaruba.....	125	26	99
R. Comstock, C. J. Schmidt Co.....	135	35	100
L. Adlestein, Fleischhacker Paper Box Co.....	142	40	102
C. J. Bastedo, Boxboard Products Co.....	138	35	103
Hugh Peat.....	143	35	108

This Letter May Be For You

Nov. 27, 1927.

Mr. Miller Freeman
71 Columbia St.
Seattle, Wash.

Dear Sir:

I purchased a copy of "Pacific Pulp & Paper Industry" yesterday and am certainly surprised to note how rapidly this industry is developing.

I spent twenty years in Japan (ten in business) and amongst other imports, handled sulphite pulp from Norway and Sweden. It may be possible that the mills growing up in this Northwest might create an opening for someone speaking Japanese and knowing their product. So I write asking that you kindly bear me in mind should any such opportunity present itself.

I would appreciate an expression of your opinion as to such prospects and enclose a stamped envelope in case you should be moved to favor me with such.

I have had years of import, export and general office experience and am a bookkeeper of parts, so that I could well fit in in that capacity.

Yours in anticipation,

Pacific Pulp & Paper Industry has the above original letter in its files and will be glad to forward communications of those interested.



CARL E. BRAUN

Braun Becomes General Superintendent

Carl E. Braun, electrical engineer for the past four years for the Columbia River Paper Mills, Vancouver, Washington, has been named general superintendent of that company. Previous to his present connection Mr. Braun was employed as assistant chief electrician at the Crown Willamette Company plant at Camas. He succeeds H. L. Sherrei, who has been superintendent at the Vancouver mills for the past nine months.

Object to Canadian Pulp Plan

Timber holders, fishermen and Indians have protested against the proposal of the Canadian Forest Products Limited to establish a big pulp and paper plant near the Nimpkish River, northern Vancouver Island, and their claims will be heard in a few days by the provincial water board, it is announced by the government.

Timber holders want to be assured that values will not be adversely affected and Indians and fishermen object to the company's waterpower project. Having filed a preliminary application for water rights on the Nimpkish, the Canadian Forest Products Limited will apply shortly for enlarged rights in order to control much larger water powers near the mouth of the river. Decision to apply for new water powers follows extensive surveys made this year. As soon as the company's full plans have been filed the provincial water board will hold its inquiry.

Canadian Forest Products Limited represents the reorganization of the old Beaver Cove Timber & Pulp Company. It is financed largely by the International Harvester interests.

Schweitz Visits Bellingham

Ernest Schweitz, superintendent of the Spaulding Pulp & Paper Company, Newberg, Oregon, was a Bellingham, Washington, visitor early this month, studying mill operation in that city at the plant of the San Juan Pulp Manufacturing Co.

MORE TRADE TALK

C. H. Beckwith Named Coast Manager



C. H. BECKWITH

Operation of all the Pacific Coast divisions of the Carter Rice & Co. Corporation is now under the direction of Mr. Charles H. Beckwith, according to an announcement by that company on December 1. In the same announcement Mr. Allen M. Olinger is named as manager of the San Francisco division.

Mr. Beckwith joined Carter Rice & Co. at Boston at the close of the war, spending several months in different departments of this large Boston house before specializing in the book paper field. He managed the book paper department for about two years, spending some time in developing a special lithograph paper.

Decision of Carter, Rice & Co. to place someone thoroughly familiar with the company's policies and principles in charge of their Northwestern interests at Seattle and Portland resulted in Mr. Beckwith being given that post. Mr. Beckwith had for some time been interested in Pacific Coast development, particularly, as he says, "in observing the steady utilization of the vast resources so ideally suited to the manufacture of pulp and paper."

"Although the volume of printing papers distributed in the West is not comparable to that of the East," Mr. Beckwith states, "I find ample evidence of steady and wholesome increase. The relation between increasing production and consumption of printing papers in the Pacific Northwest is very interesting. The effort of the manufacturer is to realize — even to anticipate — the needs of the Western consumers, and the paper merchants are striving to perfect their marketing machinery to secure the highest economic distribution from mill to user."

"The Western users are alive to the advantages of affording Western made papers a nearby market also. There is also a ready appreciation of the finer papers which come principally from the Eastern mills. It is the purpose of Carter, Rice & Co. to serve the consumer with both these lines."

"We are now planning some changes in the San Francisco branch, adding to the present lines and improving the distribution facilities."

Mr. Olinger, who will manage the San Francisco office, has been with Carter, Rice & Co. for about five years at San Francisco. He succeeds the late Frank S. Thayer. Before joining Carter, Rice & Co. Mr. Olinger was manager of the coarse paper department of Martin-Camm Co.

Adopts 1000-Sheet Count

The Commercial Paper Corporation, San Francisco, has adopted the 1,000-sheet count and carton pack, Marcus Alter, president, announced recently.

Zellerbach Sales Managers Meet

Sales managers of the Zellerbach Corporation and its subsidiary and affiliated companies will meet in San Francisco December 12, 13 and 14 with headquarters executives and department managers in the first annual Zellerbach Sales Managers Conference.

Rollin C. Ayres, advertising and educational director of the Zellerbach Corporation, will preside at the meetings. Mr. Ayres arranged the program and assigned various subjects to different sales managers for papers and discussions.

It is expected that about sixty-six will attend, coming from Oakland, San Jose, Stockton, Sacramento, Fresno, Los Angeles, San Diego, Portland, Eugene, Seattle and Spokane.

The companies represented will be the Zellerbach Corporation, the Zellerbach Paper Company, the National Paper Products Co., the Sanitary Products Corporation, the Washington Pulp & Paper Company and the affiliated company, Fibreboard Products, Inc.

Meetings will be held in the Zellerbach assembly room and there will be dinners, a theatre party, a smoker and other events in the evenings. On December 15 the delegates will be taken to Stockton to visit the board mill of Fibreboard Products, Inc.

The problems will concern chiefly sales work in printing papers, wrapping papers, paper specialties and sanitary products and the delegates will be urged to make suggestions which will result in increased sales, particularly in the more profitable lines.

Graham Employees Frolic

Employees of the John W. Graham Paper company to the number of about 250 enjoyed themselves Saturday night, December 3, at a dance in the Knights of Columbus hall. The entire John W. Graham entourage, from John W. himself, down to the newest of the special corps of the Christmas "extras" was there to do justice to the merrymaking spirit. From John W., James Graham, John Mathieson, advertising manager, Clarence Drury and all of the old-type clan, and the hordes of others, it was jollity and good time unconfined.

The affair was one in honor especially of those who are filling the holidays. Hartley's orchestra furnished music and Miss Lucille Elijah performed a solo toe dance number, and together with her sister, gave a clog dance number that elicited many words of praise.

These Graham company hops are featured four times each year, in a spirit of "get-together" for the better understanding and cooperation among employees.

West Virginia Representative North

George L. Rodier, Pacific Coast manager of the West Virginia Pulp & Paper Co., was in Washington and Oregon calling on the trade during November. Mr. Rodier makes his headquarters at 503 Market St., San Francisco. He has been in the paper business for thirty-one years, having spent the last eight years on the Pacific Coast.

Rocky Mountain Envelope Company Growing

The Rocky Mountain Envelope Company of Denver is turning a remarkable volume of business this year, continuing its production record which has been exceeded each year of its operation. Begun in 1920 with its field practically limited to Denver and the surrounding territory some \$35,000 worth of business was done the first year. In 1921 the \$70,000 mark was crossed

and each succeeding year has chalked up new records in arithmetic progression, 1927 estimated business being \$250,000.

Instead of being limited to Denver the company output is sold in all the states with the one exception of Maine. At least 90 per cent of the business is done outside of Colorado. By specializing on certain types of envelopes the company has been able to triple its out-of-town business during the past year. Due to rapidly increasing trade on the Coast the firm found it necessary to build a branch plant at Portland last year. Everything in envelopes is made in the plant including many envelope specialties. All printing is done by the plant. The output now runs 400,000 daily and requires 200,000 pounds of paper a month. This is secured both from the Pacific Northwest and the New England states. Ten folding machines are in constant operation. Forty-three employees are kept on a full time schedule.

Wilson Leaving A. P. W.

W. T. Wilson, San Francisco, Pacific Coast manager for the A. P. W. Paper Co. of Albany, N. Y., is leaving this firm January 1 to devote his time to other interests. Mr. Wilson, who has been with the A. P. W. company twenty years, also has represented other eastern companies and his paper business has grown so great that it now requires one man's entire attention. A new coast manager is being sent out from the factory.

E. H. Burton, vice-president and general manager of the A. P. W. company, was on the coast on his annual trip in October and November, returning to Albany on the morning of Thanksgiving Day.

The A. P. W. company's Seattle office has been moved to Portland with H. A. Munson remaining in charge.

Carpenter At Salt Lake in New Home

The Carpenter Paper Co. is now established in a three-story building at 331 Rio Grande St., Salt Lake City, following the destructive fire which practically gutted the store and warehouse on October 23. The new quarters afford the Carpenter Paper Co. with three floors and basement, a total of 55,000 square feet of floor space. Office and sample rooms are provided on the first floor in front, while in the rear are stocks of fine papers and the shipping room. Heavy papers, bags, twines and similar goods are stored in the basement. Upper floors are used for surplus stocks. The new location has good trackage facilities. Two railroad cars can be accommodated at one time and three trucks can load at once on the north side of the building.

Portland Envelope Company Incorporates

The Portland Envelope Company, 440 East Morrison street, Portland, was incorporated last month with a capital stock of \$40,000. Archie A. McFarland, William A. Duncan and Harry F. Frazer are named incorporators. The trade name of the product is to be known as "Penco." While but ten employees constitute the initial working force, it is planned to add to the force as business expands until fifty persons are employed.

The company, which has a close working interest with the Rocky Mountain Envelope Company of Denver, Colorado, is under the management of Mr. McFarland.



ROLLIN C. AYRES

Ayres Resumes Advertising Post

Rollin C. Ayres, San Francisco, educational director of the Zellerbach Paper Company, has resumed the post of advertising director of the Zellerbach Corporation, a position he held for eight and one-half years before illness compelled him to give up the work.

Mr. Ayres succeeds D. C. McMillin, who has been advertising director as well as director of sales and purchases of the Zellerbach stationery and notions department. Mr. McMillin will now devote his entire time to the stationery and notions work.

Gates to Manage L. A. Office

P. A. ("Bob") Gates, San Francisco, has been made manager of the Los Angeles office of the West Virginia Pulp and Paper Co., effective December 15. For two years Mr. Gates has been in the San Francisco office under Manager George L. Rodier.

The Los Angeles office of the West Virginia company is located at 122 East 7th St.

Bob's many golfing friends in the San Francisco bay region will miss him but hope he has better luck "on and off" the Southern California fairways.

Christmas Trade Good in Denver

Set over against the Colorado coal strike which has worried paper men in Denver comes the report of a good volume of business in Christmas lines. The Butler Paper Company reports Christmas lines going good with seasonal business fully up to expectations. The Graham Paper Company has done well with an introductory line of high grade stationery. Paper box companies are working to capacity on Christmas gift containers.

PACIFIC PULP and PAPER INDUSTRY prints all the Western news.

How's Business?

Seattle

Seattle issued 675 building permits in November calling for an expenditure of \$3,193,430 as compared to the November, 1926, totals of \$2,280,840. Thus far this year the building permit values are \$27,788,860. For the first eleven months of 1926 the values reached \$30,142,605.

Bank clearings showed a healthy increase over November 1926, with the figure for this year totaling \$199,994,696. The total for the first eleven months of the year, however, is a little short of the 1926 figure.

Lumber sales fell off during the month from 126,000,000 feet during the first week of the month to 90,000,000 feet for the last week of the month. Lumber production has been steady, with shipments consistent with new business and production.

New industries coming into the Puget Sound area are encouraging. Two new chemical companies announced during the month that they would build plants at Tacoma, both of them with the pulp and paper industry in view as a principal customer. In Seattle the Pacific Coast Cement Co. announced a \$4,000,000 plant.

Retail trade is at a peak with Christmas business now here.

San Francisco

Bank clearings in San Francisco broke all recent monthly records in November, 1927, when they climbed to the total of \$935,535,780, against a total of \$930,535,268 for October, 1927 and \$762,250,760 for November, 1926. It was said that this activity was due largely to stock market operations.

Retail trade was moderately active in the San Francisco section in November, with stores reporting a wider use of credit than in former years. The prune crop carry-over has been disposed of and the bean crop is estimated at some 1,300,000 bushels short of last year's crop.

Building permits jumped in value in November, reaching a total of \$6,382,171, with 592 permits having been granted. In October 769 permits were issued, but the work was valued at only \$2,518,374.

Shipping fell away slightly from the record month of October. In November the tonnage arrivals totaled 1,412,272 against 1,547,983 for October. Departures totaled 1,417,745 tons against 1,479,478 for October.

Vancouver, B. C.

Indicating continuance of business activity in British Columbia, the principal cities show healthy increase in building operations. During the month of November Vancouver's construction represented an expenditure of \$265,000, or \$216,000 more than during the corresponding period in 1926. The month's building operations in Greater Vancouver totalled more than a million dollars.

Industrially, British Columbia is busier now than ever before. Lumber business is reported quiet so far as sales are concerned, but production is well maintained. Mining output will be greater than last year, although decline in metal prices will make the value of production slightly less than in 1926, according to preliminary figures. Contrary to expectations earlier in the year, coal output has increased. New capital, mainly from New York and other Eastern financial centers, is being invested in Portland Canal mines and important developments are looked for in that quarter.

Retail business is reported better than at the corresponding period last year and collections are improving.

Despite alarmist reports given circulation earlier in the year, the salmon pack in British Columbia waters has been heavy, especially in pinks and chums, and the heaviest run of sockeye in years is reported on the Fraser River. The fish meal and oil industry on the west coast, where thirteen plants are operating, has just closed a banner season.

Vancouver elevators are crowded with wheat from the prairies and with plenty of tonnage available the grain export from this port will approach the record established three years ago.

Los Angeles

Retail sales showing marked advances over November, 1926, give encouragement, total volume being six per cent over last year. Pittsburg Plate Glass Company announces a large plate glass plant for Los Angeles to be built in 1928, and to handle export business. Agricultural products near record net returns. Canning industry reported in best shape for years. Mining industry stimulated by better lead and copper quotations and oil industry more stabilized. The Southwest Business Review believes "there is no grounds for apprehensions and there is every assurance of excellent conditions for the immediate future." November building permits reached high total for the year with \$17,464,327, practically double that of a year ago. Construction for the year is well ahead of 1926. Bank clearings totaled \$789,656,176, showing an 11 per cent increase over last year. Collections are reported good in retail and fair in wholesale. The motion picture industry is active. Water borne commerce showed some depression in certain lines, but on a whole is satisfactory. The citrus industry reports higher returns for its fruit, despite increased production.

Portland

Bank clearings of Portland failed to set a new record in November, but came close to it, topping the figures of all Novembers prior to 1926, when the big total of \$187,280,496 was reached. For this November the figure was \$181,420,585.

General business conditions are reported good, with collections slightly better than a year ago at this time. A survey shows that collections equal about thirty-five per cent of accounts receivable. Value of sales at retail are slightly higher and of sales at wholesale slightly lower than November of 1926.

Industry, generally, operated at somewhat lower levels than October because of seasonal fluctuations. Distribution and consumption are well maintained, however. Building and lumbering is hitting a slower pace and, with the annual canning season ended and the peak of the fall crop movement over, a reflection of the moderate recession in business which has been in progress since early summer is expected.

Completion of the filling of the site of the pulp mill of the West Lumber & Pulp Company of Aberdeen was effected about the middle of November. The fill was made by the port of Grays Harbor dredge and was to a height of one foot above the highest point the tide and high waters have ever brought the water level on Grays Harbor.

It cost the federal government \$500,070 to fight 1490 forest fires on the national forests of Oregon and Washington last year.

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PACIFIC COAST REPRESENTATIVE
APPLETON FELTS AND WIRES
RUBBER COVERED ROLLS FOR PAPER MACHINES

335 BROADWAY
PORTLAND OREGON

November 7, 1927

Pacific Pump & Paper Industry
71 Columbia Street
Seattle, Washington

ATTENTION: Mr. Scott

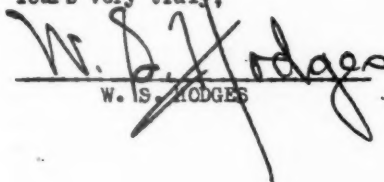
Gentlemen:

Have your letter stating you have sent forward the last issue which copy I had failed to receive, and thank you for your prompt response to my letter as I rather look forward to getting your magazine each month to see what is new among the coast paper mills and in the trade.

In this connection, think it only fair and friendly to tell you that while on the writer's travels among the coast mills, including British Columbia, he hears many favorable comments on your magazine, first among them being the thought that you seem to get most of the coast news while it is yet news and of interest, a condition that we have not had in the past due chiefly, no doubt, to our distance from the offices of the eastern publications, and their possibly not realizing as fully as we in the West do, the fast growing importance of the industry on the Pacific Coast. So believe your magazine fills a distinct place of its own, and think you are to be complimented highly on the excellent showing you have made during the few months you have been underway.

With best wishes for your continued success, I remain,

Yours very truly,


W. S. HODGES

WSH:B

The Longview Fibre Company

(Continued from page 21)

capacity, installed on the Longview Fibre property, serves to step down the 13,200-volt line from the lumber mill to voltages used in the pulp mill. The switchboard has the latest type remote controlled units, and is installed directly under the control board in the turbine room.

A thirty-foot dike at the river's edge protects the Longview mill from fluctuations in water level. Because of this condition the water and sewage system is of more than passing interest. Dependable means of operation and control had to be worked out by the engineers.

Three motor-driven Byron-Jackson turbine type vertical pumps lift water over the dike through a 30-inch welded steel pipe from a natural basin connecting with the Cowlitz river. Passing through two filters and a surge tank the water flows by gravity through a 30-inch steel pipe, and is circulated through the mill by three more Byron-Jackson pumps.

Siphon Over Dike

Sewage flows into a sump which siphons through a 24-inch pipe to discharge over the dike into the Columbia river some distance below the raw water intake. Three Byron-Jackson vertical pumps are set in this sump to give flow when the river stage is above normal; otherwise the pumps will not be required.

The Longview mill was designed and constructed under the supervision of Charles R. Seaborne, chief engineer of the Thilmany Pulp and Paper Company. Mr. Seaborne has been identified with the pulp and paper industry practically all of his life and has been associated with mill construction in many parts of the continent. One of his earlier connections was with the Shawinigan Water Power Company, and later with the Laurentide Paper Company in Quebec. In 1914 he joined the Union Bag and Paper Corporation. He has been chief engineer for the Thilmany mills since 1925, being granted a leave of absence from there to supervise the work at Longview. With the mill in operation he returned to the East on December 1.

With the departure of Mr. Seaborne the duties of chief engineer at Longview were assumed by Mr. W. E. Dodge, formerly of San Francisco.

Thilmany Interests

The list of officials behind the Longview Fibre Company brings out some names that have been long identified with the paper industry in the East. As previously stated, the inspiration for the Longview mill developed at the Thilmany Pulp and Paper Company at Kaukana, Wisconsin. M. A. Wertheimer, president of that company, is chairman of the board of directors for the Longview Fibre Company, and R. S. Wertheimer, his son, is resident manager of the new mill. The younger Mr. Wertheimer was assistant engineer at Thilmany, concerning himself there principally with production and operation.

H. L. Wollenberg is president of the Longview Fibre Company. He is an engineer, associated formerly with the Beacon Oil Company of Boston. Mr. Wollenberg will divide his time between offices at the Longview mill and San Francisco.

D. C. Everest, general manager of the Marathon Paper Mills at Rothschild, Wisconsin, is vice-president of the Longview Fibre Company, and M. T. Ray, who has been chief accountant at Thilmany for several years, is secretary.

The beginning of production at the Longview Fibre

Company's mill is important for Longview itself. Since the first unit of the big lumber mill was established there has been a gradual refining of the process to get complete use out of the wood taken from the forests. The lumber mill interested itself chiefly in taking out lumber, and the amount of waste involved can in part be realized by witnessing the huge burners on the Long-Bell property. Subsequently sash and door factories, wooden handle factories and other auxiliary industries tied themselves in with the lumber mill to effect a more complete utilization of wood. The fibre mill is but one more step in the process.

The lumber mill employs about 2,200 men with an annual payroll for the unskilled labor running about \$2,600,000. The fibre plant will require an operating crew of about 225 men with an annual payroll somewhat in excess of \$300,000.

Crown Willamette Issues Report

Net earnings of the Crown Willamette Paper Company for the nine months ended September 30, last, exclusive of profits of Pacific Mills, Ltd., were more than double first preferred dividend requirements, and more than seven times dividend requirements on the second preferred shares. The balance remaining for the common stock was equivalent to \$1.15 a share, or at the annual rate of \$1.53, according to the company's quarterly report.

For the first nine months of this year net revenues totaled \$4,328,481. Write-off for depreciation amounted to \$941,091, and depletion charges totaled \$175,074. Bond interest was written off at \$997,765, and reserve for income tax was carried at \$272,520. The balance, or net profit available for dividends, amounted to \$2,386,451.

This is equivalent to \$11.93 a share on the 200,000 shares of first preferred stock outstanding, or at the annual rate of \$15.91 a share, as against annual dividend requirements on the first preferred stock of \$7 a share. After first preferred dividends, \$1,336,451 remained for the second preferred, or equal to \$32.59 a share on the 41,000 shares outstanding. This is at the annual rate of \$43.45 a share, as against \$6 a share paid annually on the second preferred stock.

After all preferred dividends \$1,151,951 was carried to surplus. This is equivalent to \$1.15 a share on the 1,000,000 shares of common stock, or at the annual rate of \$1.53 a share. No dividends have been paid on the common shares.

Net earnings available for dividends in the third quarter amounted to \$836,053. Net revenue totaled \$1,509,756. Depreciation write-off amounted to \$325,252, and depletion charges \$79,642. Bond interest totaled \$336,568, and income tax reserve was carried at \$94,589.

The Pacific Mills, Ltd., controlled through 88 per cent stock ownership by the Crown Willamette Paper Company, reported net revenue in the first nine months of this year amounting to \$1,683,729. Write-off for depreciation and depletion totaled \$627,733 and \$15,117, respectively. Charges for bond interest amounted to \$246,765 and reserve for taxes \$132,527. The balance of \$661,585 was carried to surplus account.

In the third quarter Pacific Mills, Ltd., reported net revenue of \$549,561 and \$212,252 carried to surplus after all charges. Depreciation write-off amounted to \$211,806 and depletion \$1,979. Bond interest was carried at \$81,256, and \$4,267 was reserved for income taxes.

Freight Loading Forecast

Increased activity in the pulp and paper industry on the Pacific Coast is reflected in the forecast for freight car requirements submitted by the Paper, Paper Products, and Pulp committee of the Pacific Northwest Advisory Board at its meeting held in Portland on December 16. The report forecasts a prospective loading of 2,285 cars for the first three months of 1928, as compared with an actual loading of 1,839 cars for the same months in 1927. R. L. Shepherd, secretary-treasurer of the Tumwater Paper Mills, is chairman of the committee, and W. A. Brazeau, secretary of the Inland Empire Paper Company, is vice-chairman. The report follows:

Owing to the varied and lengthy program for the December meeting, this committee will not attempt to recapitulate the progress and development in the pulp and paper industry of the Pacific Northwest. We will submit for your consideration at this time actual loadings for the first three months in 1927 and prospective loadings for the first three months in 1928.

The outbound movement of paper, box board, containers and pulp in this territory in the next three months will approximate 2,285 cars, divided by months as follows:

	Actual Loading 1927	Prospective Loading 1928
January	591	744
February	600	752
March	648	789
	1,839	2,285

The distribution of the 2,285 cars outbound will be in the following territory:

	Cars
Oregon	212
Washington	449
California	470
Eastern Territory	234
Southwestern Territory	188
Middle Western Territory	393
Canada	247
Export	92
Total	2,285

The inbound movement will be approximately as follows:

	Actual Loading 1927	Prospective Loading 1928
January	1,192	1,553
February	1,236	1,509
March	1,321	1,530
Total	3,749	4,592

The inbound materials are classified below, showing originating territory:

	Cars
Wood from Oregon, Washington and Idaho	1,775
Logs from Washington and Oregon	1,800
Alum from California	13
Coal from Alberta, Canada	60
Dolomite from Washington	9
Starch from Illinois	6
Fuel Oil from Portland and Tacoma	42
Lime from Washington	18
Limestone from Oregon and Washington	115
Rosin Size, in tank cars, from Florida	17
Silicate of Soda from California	5

Soda Ash from Michigan	1
Talc from California	15
Waste Paper from Oregon, Washington and British Columbia	217
Sulphur from ship side, Portland and Tacoma	62
Hog Fuel, from Silverton and Dallas, Oregon	427
Lumber	8
Chlorine	2
Total	4,592

Business conditions in the paper industry throughout the West are somewhat quiet, owing to the approach of the first of the year and a consequent desire on the part of jobbers to have their stocks as low as possible for the new year inventory. It is felt that there will be a perceptible increase in the demand for standard papers immediately after January 1. The heavy increase of prospective loading is due to additional machine capacities of the older mills and the newer ones coming into production. There is a noticeable increase in the tonnage handled by motor truck, particularly on short hauls. Carloadings and unloadings have been prompt; practically all commodities are on contract.

Committee on Paper, Paper Products and Pulp.
Chairman, R. L. Shepherd.

W. H. Donaldson Visits Coast

W. H. Donaldson of the Perkins-Goodwin Company, New York, returned to the home office by way of Chicago late in November. This is Mr. Donaldson's second trip to the Pacific Coast during the present year. He visited many of the mills on the Coast during the spring.

One of the purposes of the present trip was to witness the initial operations of the Spaulding Pulp & Paper Company, which has just put into operation a 50-ton sulphite mill at Newberg, Oregon. The Perkins-Goodwin Co. is handling the Spaulding output.

"The Spaulding mill is going to specialize in high quality pulp," Mr. Donaldson states. "It is using only new, clean, white fir cordwood and is paying especial attention to its manufacturing process."

Mr. Donaldson's visit to the West Coast took him to San Francisco, Portland, Seattle, and to a number of the pulp mills.

"The Pacific Coast has every indication of being an important pulp and paper producing section," Mr. Donaldson states. "We cannot expect to see a development spring up here over night, but the advantages enjoyed by the Pacific Coast in the matter of wood, power and other essentials point toward the development of a sound industry."

Warn Against Labor Influx

Construction of new pulp and paper mills is having the effect of drawing labor to those towns where the activity is going on. Too often a shortage of labor is reported or implied and this results in an influx of labor that is entirely needless. The flow of men to these points of construction reflects in some degree at least the state of unemployment. One of the concrete examples of this influx of labor is found at Hoquiam, Washington, where the Grays Harbor Pulp Company's mill is under construction. Chris Kuppler and Sons, general contractors for the mill construction, report that the labor market there is already over-crowded. Their company has issued a warning on conditions in an effort to curtail the influx of unemployed.

EDITORIAL

What's to become of the paper jobber? The jobber is asking himself that, and the mills, facing increasing competition with increasing production, are wondering too. The path ahead of the jobber is *With Every Rose A Thorn* rosy—and with every rose a handful of thorns. Varying opinions can be had from the jobbers, leading one into a quandary with respect to the true situation. Some see in the carton pack a first move to eliminate the jobber. Others will tell you with equal frankness that the jobber will always have his place. The Western mills, working in gentleman's agreement to sell only through the jobber, face the inroads of the Eastern mills who are selling the larger accounts direct from mill to customer. The Western jobber wonders, "How long will the Western mills hold out?" The law of self-preservation is still a strong one.

The question of direct selling is not being faced by the paper trade alone. It is a nation-wide tendency. The chain store idea is spreading into more and more fields, and with the chain idea is increased buying power, quantity orders that command respect, and make the purveyor think long. The big buyer has always been able to wield a weapon.

Precedent sets things going. It takes only one sheep to jump the fence to get the whole flock going. Some in the paper trade are looking the direct-buying problem squarely in the face and trying to analyze the outcome. Will it be a question of fighting windmills to try and route all orders through the jobber? Will it be better to appreciate fully the direction the stream of business is taking and, instead of trying to dam it, swing into it and make use of the current. In other words, is the jobber going to concede that it is fair for the mill to sell the big account direct, or is he satisfied that the existing system is correct? From all appearances the trade is in for experiences of increasing interest.

One thing is certain. There will always be jobbers. Someone has to maintain stock in the centers of paper consumption, ready to supply the demand, on demand. Whether the future day jobber will be the same type of merchant as the jobber of today time only can tell.

There is plenty of talk to the effect that the newsprint industry is in a sad state and that "overproduction" is a word that finds a taker at any opportunity for argument. The recent years, when Canada

Regarding Newsprint Production has forged to the front in newsprint production, have witnessed some mighty changes in the industry, but those who are willing to speak candidly on the situation are expressing no fears and admit that the industry is in a healthy condition. The News Print Service Bureau shows that the Canadian mills operated at 86.5 per cent of rated capacity in October and that the United States mills operated at 76.9 per cent of rated capacity. In round numbers the economic group including the United States and Canada operated at 80 per cent of rated capacity for October. Stocks on hand were equivalent to 4.5 days' average production.

Looking at these figures intelligently will give little cause for alarm. Production figures for several years

back will show that newsprint production has increased at the rate of seven per cent on an annual compounded basis. With 20 per cent of the equipment idle at the present moment and forecasting the future on this basis of seven per cent annual increase, it will take the newsprint industry about three years to catch up to present rated capacity with its actual production. No argument is offered for the building of new newsprint mills at the present time. Increased production for three or four years is unwarranted, but undoubtedly some new mills will be needed then as it must be remembered that the newsprint mill of today is an institution of real size. The older mills where the wood supply has been exhausted are fading out of the picture, but, whereas these older mills are of comparatively small capacity, several of these old mills must be eliminated before production capacity falls off enough to warrant even one new mill. One man of newsprint authority has placed the minimum capacity of the economic newsprint mill of today at 400 tons. It takes no wizard of figures to appreciate that several mills of 40 and 50 or 100 tons must pass by the boards before one new modern mill is justified in taking its place.

Some may point to the eighty per cent operation as representing heavy loss, as uneconomic. To these people it may be pointed out that some flexibility in the industry is desirable as well as necessary. The steel industry regards an eighty per cent production as normal. Other industries regard as normal a production that runs 50 per cent or even less of their full rated capacity. Consumption of the product is not something that is fixed like the postage rate on a letter. It has its fluctuations even as the flow in our rivers. To expect the newsprint industry to operate at 100 of rated capacity all of the time is to hope not only for the impossible ideal, but also to withdraw from that industry any desirable flexibility.

The publishers understand quite well now the situation of the mills. This is evidenced in the renewal of the 1928 newsprint contracts for the same price as 1927. Certainly this is an indication that the publishers are not seeking a ridiculously low price on paper based on suicidal competition among the mills, but are seeking to find some stability in the newsprint market. At \$65 a ton the mills are in no serious straits, according to a statement by men prominently identified with the newsprint industry, although the margin is small and another \$5 per ton would help out materially.

What the future has in store can only be predicted, with one man's prediction as good as the next. About the only safe statement that can be made is that the war is still showing tremendous effects throughout the world, and until that post-war effect is entirely eliminated no smooth and rosy road can be hoped for.

Davis Raft Litigation Settled

Litigation in the suit of the Davis Log Raft Patents Company and the Davis Ocean Log Raft Towing Company of Portland, which claimed damages for alleged infringement of Canadian patents to construct Davis rafts has been settled. Cathels & Sorenson, Victoria logging operators, have abandoned their appeal from judgment in favor of the Davis companies. An injunction was issued against Cathels & Sorenson forbidding them to use the rafts and ordered them to pay damages for infringement. By the terms of settlement the logging operators have agreed to pay royalties for the use of the patents.

Pulp

Paper



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Drawing Plans for Shaffer Box

Construction of the sulphite pulp mill of the Shaffer Box Company at Tacoma, Washington, is expected to begin soon after the first of the year, according to company officials. L. A. DeGuere, pulp and paper mill engineer, who has been retained to design and construct the mill, is now working on the plans.

Financing has advanced to a stage that warrants an early beginning of construction work, according to Tom G. Taylor, of the Tom G. Taylor Company. The Taylor Company is handling the financing.

A reserve of wood is already being accumulated in the yards of the Shaffer Box Company.

The Shaffer Box Company has perfected its organization and has announced the following officers and board of directors:

President, Ralph Shaffer; vice-president and treasurer, F. C. Brewer; vice-president and superintendent, R. H. Pangborn, and secretary, E. A. Glueck.

The Board of Directors is composed of W. W. Seymour, Frank Beers, W. R. Rust, and L. J. Hull, in addition to the above named officers.

Mr. Shaffer has been president of the Shaffer Box Company for the past seven years, and Mr. Brewer has also held his present position for some time. Mr. Pangborn continues in his capacity. Mr. Seymour is president of the North Pacific Service Co., president of the Ellensburg Gas & Water Co., and president of the Seymour Land & Timber Co. Mr. Beers is manager of the E. I. duPont de Nemours & Co., at duPont, Washington. Mr. Rust is a Tacoma capitalist and is a director in the National Bank of Tacoma. Mr. Hull is associated with the Alitak Packing Co., of Seattle.

The mill is to be of 50-ton capacity. It will have two digesters and a 100-ton acid system, and will be constructed to permit expansion as desirable.

October Newsprint Statistics

According to the News Print Service Bureau's monthly bulletin, production in Canada during October, 1927, amounted to 191,171 tons and shipments to 188,769 tons. Production in the United States was 114,675 tons and shipments 118,371 tons, making a total United States and Canadian newsprint production of 305,846 tons and shipments of 307,140 tons. During October, 17,049 tons of newsprint were made in Newfoundland and 1,075 tons in Mexico, so that the total North American production for the month amounted to 323,970 tons.

The Canadian mills produced 161,184 tons more in the first ten months of 1927 than in 1926, which was an increase of 10 per cent. The United States output was 151,615 tons, or 11 per cent less than for the first ten months of 1926, that in Newfoundland 16,332 tons, or 11 per cent more, and in Mexico 1,241 tons, or 12 per cent more, making a total North American increase of 27,142 tons, or 1 per cent.

During October the Canadian mills operated at 86.5 per cent of rated capacity and the United States mills at 76.9 per cent. Stocks of newsprint paper at Canadian mills totalled 35,774 tons at the end of October and at United States mills 27,939 tons, making a combined total of 63,713 tons, which was equivalent to 4.5 days' average production.

October Pulp and Paper Productions

Due to the fact that there was one more working day in October than in September, the total monthly

production of paper in October increased 0.8%, according to reports to the American Paper and Pulp Association.

The total production of paper reported for October was 571,404 tons as compared with 566,869 tons in September and 583,145 tons in October, 1926.

Fine and tissue papers were the only grades not showing a decrease in the daily average production; fine showing no change and tissue increasing 0.5% over September daily average.

Total production of wood pulp for October was 186,522 tons as compared with 164,815 tons in September and 226,862 in October, 1926.

COMPARATIVE REPORT OF OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF OCTOBER, 1927

Grade	Number of Mills	Practical Production Capacity	Production	% of Capacity	Shipments	% of Capacity	Stocks on Hand End of Month
Newsprint	71	149,058	114,675	77	118,371	79	27,939
Book	66	113,516	94,037	83	95,166	84	53,380
Paperboard	116	264,238	211,503	80	213,379	81	42,382
Wrapping	73	62,498	53,127	87	52,664	86	46,681
Bag	20	15,496	13,689	88	14,129	91	8,669
Fine	74	33,670	31,066	92	31,139	92	40,719
Tissue	46	14,352	14,359	100	15,253	107	13,472
Hanging	9	7,202	6,017	84	5,884	82	3,691
Felt & Building	13	13,702	10,890	79	10,100	74	2,704
Other Grades	60	29,310	22,038	75	21,660	73	18,594
TOTAL—All Grades	705,242	571,404	81	577,745	82	258,231	

COMPARATIVE REPORT OF WOOD PULP OPERATIONS IN IDENTICAL MILLS FOR THE MONTH OF OCTOBER, 1927

Grade	Number of Mills	On Hand First of Month	Production For Month	Used During Month	Shipped During Month	On Hand End of Month
Groundwood Pulp	86	101,773	78,759	82,715	2,433	95,384
Sulphite News Gr.	38	8,449	39,561	36,990	1,714	9,306
Sulphite Bleached	22	2,553	24,431	22,266	2,467	2,251
Sulphite Easy Bl.	7	1,963	3,702	3,471	190	2,004
Sulphite Mitscherlich	6	427	7,269	6,102	1,179	415
Sulphite Pulp	10	2,790	16,822	15,023	1,690	2,899
Soda Pulp	11	2,789	15,943	11,557	4,641	2,534
Pulp—Other Gr.	2	172	35	-----	-----	207
TOTAL—All Grades	120,916	186,522	178,124	14,314	115,000	

PAPER REVIEW FOR TEN MONTHS IN 1927

Grade	Number of Mills	Production (Net Tons)	Shipments (Net Tons)	Stocks on Hand End of Month (Net Tons)
Newsprint	71	1,250,373	1,235,461	27,939
Books (M. F. S. C. & Coated)	63	916,925	908,879	53,016
Paperboard (Straw, Fibre, Leather, Chip, Box, Etc.)	113	1,933,949	1,938,476	41,185
Wrapping (Kraft Manila, Fibre, Etc.)	74	516,216	503,344	47,161
Fine (Writing, Bond, Ledgers, Etc.)	74	299,225	300,212	40,719
Bag (All Kinds)	23	126,633	127,022	8,669
Tissue (Toilet, Crepe, Fruit Wrappers, Etc.)	53	144,772	143,786	14,320
Hanging (No. 2 Blank, Oatmeal, Tile, Etc.)	9	57,096	56,362	3,691
Felts and Building (Roofing, Sheathing, Etc.)	13	103,418	103,025	2,704
Other Grades (Specialties Not Otherwise Classified)	60	221,593	220,062	18,594
TOTAL—All Grades		5,570,200	5,536,629	257,998

WOOD PULP REVIEW FOR TEN MONTHS IN 1927

Grade	Number of Mills	Production	Used	Shipped	On Hand End of Month
Groundwood Pulp	91	856,654	866,706	24,807	95,384
Sulphite News Grade	38	406,547	378,527	27,527	9,306
Sulphite Bleached	23	246,519	211,165	36,669	2,543
Sulphite Easy Bleaching	7	41,371	34,664	5,621	2,004
Sulphite Mitscherlich No. 386	6	67,629	58,554	9,456	415
Sulphate Pulp	10	167,554	152,410	14,471	2,899
Soda Pulp	11	166,552	121,603	45,135	2,534
Pulp—Other Grades	2	417	186	36	207
TOTAL—All Grades		1,953,243	1,823,817	163,722	115,092

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B. C. Pulp Stressing Quality

The British Columbia Pulp & Paper Company's mill at Woodfibre will be operating on its new production basis by December 20, President Lawrence Killam announces. A good deal of work in connection with the reconstruction program remains to be done and further extensions are contemplated tentatively for the new year, but it is safe to say that pulp will be moving out again on the new schedule by the end of the year.

Gangs of men are now at work installing the new sets of flat screens and troughs and flumes are being built in by a staff of carpenters, who are also building five new washers.

Meanwhile the construction of the new waterpower facilities is well under way. The tunnel that is to give the plant a steady flow of water is now being bored and the drills are far enough into the ground to prevent the weather interfering with operations. Three feet of snow fell at Woodfibre recently, but the work went on just the same. It is expected that the tunnel will be finished by the middle of January.

Two new acid tanks, built by a Vancouver pipe company, are installed. The Woodfibre staff had grown used to the beveled-wall type and when the new tanks arrived without this feature there was some doubt as to whether they would meet requirements. When actually installed, however, they performed smoothly and will improve the plant materially in that department.

The marketing problem of the Port Alice plant of the British Columbia Pulp & Paper Company has been solved and quality production is responsible. Two years ago the marketing situation there was admittedly bad, but there has been striking improvement, officials say.

One of the indications of this improvement is seen in the increase of daily output from eighty-three tons a day to one hundred tons, and that is a development of the last couple of months. A new digester and bellmer have been installed and these facilitate production somewhat, but the real fact responsible for the advance lies in the determination of the company to put out a product that will compete successfully with the bleached sulphite turned out by any mill on the continent. How successful the company has been in this is seen by the fact that it is shipping to points as far east as Baltimore in the most competitive market in the world and commanding a price two or three dollars above the regular quotation.

"Quality pays. There is no money in turning out an inferior pulp," said President Lawrence Killam. "If you cater to the low-priced market you have to underbid everyone to make sure of a market and there's nothing in that. If you put out a good pulp—just a bit above actual market requirements as to quality—you are always sure of a sale, whether the market is up or down."

The B. C. Pulp & Paper Company is putting this idea into force and give that as a reason for being able to keep its shipments moving and dictating its own price.

The B. C. Pulp & Paper Company's processes to eliminate spots and build up strength in its pulp go back to the woods and are not confined to the mill. In the first place, the company tries to get most of its wood summer cut. In wood cleaning, as described in a previous issue of PACIFIC PULP & PAPER INDUSTRY, great care is taken to eliminate bark and knots and other blemishes and in all stages of mill

manufacture cleanliness and thoroughness are watchwords. Now the company is installing flat screens to replace those of centrifugal design and it is contemplating the building of an entirely new floor where cleaning will be carried to an even finer degree than at present.

"We are up against a problem that is unique," said Mr. Killam. "We are trying to make a bleached sulphite product out of coast hemlock, balsam and other species that will compete favorably with the spruce product of Eastern mills. I am confident that we are succeeding, but have to pioneer every inch of the way. Owing to the different conditions prevailing here, the experience of Eastern mills counts for very little. The difference in the species of wood handled as compared with Eastern fibres will always make our problem a distinctive one."

Overproduction Slows B. C. Interest

That the present world surplus production of pulp and paper will have the effect of deterring development of British Columbia's pulp timber areas for the time being but not for long, is the opinion of officials of the Lands Department who have investigated the paper situation.

Financing of large-scale pulp and paper projects at this time is being made difficult by the overproduction of paper compared with the world's consumption, the department believes. This situation, it is thought, is probably responsible for the delay in the giant Prince George pulp and paper manufacturing scheme which is backed by a syndicate of Eastern Canadian capitalists.

This condition, however, is believed by the investigators to be only temporary. The crowding appetite of the world for paper is expected soon to bring the demand abreast with the supply and stimulate again interest in this British Columbia pulpwood resources.

"While those in touch with the situation realize that overproduction is bound to disappear, this condition now makes it difficult to finance big paper undertakings in the money markets," Hon. T. D. Pattullo, Minister of Lands, explained. "The paper industry here is bound to go ahead in a big way. Nothing can stop it. At this time, far-seeing firms are getting ready for the time when world paper market conditions will justify them in proceeding with production on a huge scale."

Bearing out this prediction, the Minister stated that the Canadian Crown Willamette Company had spent over \$100,000 during the past summer in work preliminary to the creation of a gigantic paper mill near Campbell River, Vancouver Island. This money was spent in surveys of power possibilities on Campbell River and in similar work which must precede actual construction. Mr. Pattullo explained that before the company can harness the power of Campbell River and adjoining waters it must make a formal application which will be heard by the Water Board.

Charles Cullin

Charles Cullin, editor of the Powell River Digester, house organ of the Powell River Company, Ltd., has passed to the beyond. For years "Charlie" was a well known figure in printing and political circles and when the late Sir Richard McBride was premier he served as sergeant-at-arms in the British Columbia legislature. He was a native of Toronto, where he was born in 1872, and moved to the coast in '88. In the early nineties while living in Victoria he was noted as a lacrosse player.

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PORTLAND, OREGON

Manufacturers of

Pulp and Paper Mill Machinery for Pacific Coast Mills



Voith High Pressure Stock Inlet
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Valley Size Testers
Valley Laboratory Equipment
Wolf Chippers
Holland Beaters
Washing and Bleaching Engines
Agitator Equipment and Tanks
High Speed Holland Beaters
Valley Continuous Beaters
Valley Bandless Beater Rolls
Valley Ground Wood Refiners
Super Calender Pressure Device
Voith Centrifugal Pulp Screen
Stuff Chests (Vert. and Horiz.)
Barker and Barker Attachments
Valley Diaphragm Screens

Wet Machines and Roll Skinners
Deckers (Single and Double)
Valley Centrifugal Pumps
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Cylinder Moulds and Couch Rolls
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Voith Screw Presses

Eastern Manufacturing and Sales Division

VALLEY IRON WORKS COMPANY, Appleton, Wisconsin

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Developments in Colorado Paper Litigation

In a referee's decision handed down at Brighton, Colo., on Nov. 21, Joseph Buchhalter, former president of the Colorado Pulp and Paper Company, Denver, was declared to owe the firm \$34,765.56. Referee Harry Behm reported to District Judge Samuel W. Johnson that Buchhalter had received \$7,196.09, in profits from discounts on claims against the old Myers Pulp and Paper Company, which claims Buchhalter bought up at a fraction of their value and turned them into the reorganized Colorado Pulp and Paper Company at full value. The referee further found that Buchhalter had collected \$6,724.39 on claims he purchased, \$13,898.78 on claims turned over to him by Charles B. Myers, and \$4,878.06 on claims bought up after the present firms had acquired the mill. Other findings were that Buchhalter had made profits on discounting acceptances for the company, interest on loans made to his own company and that he had used company oil and gasoline in his private automobile. With these findings the referee submitted counter claims of Buchhalter for \$13,118.61 paid out for various purposes.

Judge Johnson was to act on the referee's claims and those made by Buchhalter, early in December.

The Colorado Pulp and Paper Company has been in the hands of a receiver since August.

Changes at Port Angeles

In line with the merger of Zellerbach and Paraffine companies' plants manufacturing boxboard and kindred products, the Crescent Boxboard mill at Port Angeles, Washington, lost its identity as the "Crescent" on November 1 and became officially designated as the "Port Angeles division of Fibreboard Products, Inc."

One of the few changes effected at the Port Angeles plant as a result of the merger was the moving of J. F. Garvin, former accountant for the Crescent Boxboard, to San Francisco, where he became general auditor for the Fibreboard Products corporation. J. B. Martin, Jr., a member of the Crescent office force, was transferred to Garvin's former position, and E. G. Simpson, of Winnipeg, was installed in the office vacated by Martin.

Aside from these few personal changes, the Port Angeles mill was affected little by the recent merger, Charles Myers, manager, announced.

Changes at Salem, Oregon

P. J. Lamoureux, until recently general superintendent of the Marinette and Menominee Paper Company of Marinette, Wisconsin, has taken a position as general superintendent for the Oregon Pulp & Paper Mills at Salem, Oregon. Mr. Lamoureux is regarded as an expert on paper production. He succeeds C. F. Beyerl, who resigned to become president of the Western Paper Converting Company of that city. F. W. Leadbetter is president of both the Oregon Pulp & Paper Co. and the Western Paper Converting Co.

Pulp Activity Is Felt

Port Townsend and Port Angeles are already feeling the impulse of new industries, the principal one of which will be the pulp and paper mills to be established at Port Townsend at a cost of \$4,000,000, according to W. O. McCaw, Aberdeen, who, with Charles Elmore, Aberdeen, visited those cities on a business trip recently. Port Townsend, which has been dormant for

many years is very much alive now, McCaw says, and the citizens are enthusiastic. McCaw says that the coming of pulp and paper mills to Grays Harbor is likewise an aid in the building up of the Harbor section and that like Port Townsend, the impetus that will be given all business enterprises already here will be far reaching.

Tests Show Pulp Waste Not Harmful

Complaint that pulp mill sewage from the plants of the Washington Pulp & Paper Corporation and the Port Angeles division of Fibreboard Products, Inc. had been injuring the fish industry at Port Angeles, Washington, was set at naught by recent investigations made at Port Angeles by state health department officials.

There had been a complaint for several years that the pulp mill sewage was dissolving the oxygen of Port Angeles bay and that the devilish business and salmon industry had been injured. The state health department has a special laboratory boat fitted for making such tests. In a trip made to Port Angeles in November it was found that the bay scours itself and was doing no harm, due to tidal actions and proximity of the harbor to the Strait of Juan de Fuca.

Envelope Makers To Meet

Envelope manufacturers of the Pacific Coast will gather in San Francisco next month for one of their regular conferences. Alan D. Field of the Field-Ernst Envelope Company, San Francisco, announced recently. While only about six plants will be represented, the delegates will come from points as far away as Los Angeles and Seattle.

The west coast envelope manufacturers are so small in number that they have no formal organization, Mr. Field said, but their informal meetings bring out a thorough spirit of mutual helpfulness and cooperation. At these meetings, which are held every few months, topics of general interest to the industry are discussed, such as quality, standardization and the like.

Nothing to Say

H. L. Copeland, president of the Pacific States Pulp and Paper Company, which proposes the building of a plant at Aberdeen, is at his office in Longview again, after being laid up for several weeks with a fractured knee cap. Mr. Copeland is an architect. His son, Paul, is associated with him in the firm of H. L. Copeland and Son. Mr. Copeland said on November 28 that he was not in position at present to make any statement as to his company's plans.

Working On Aberdeen Water System

Work on the tunnel of the \$1,600,000 Lower Wynooche River industrial water project of Aberdeen, Washington, a plant which, according to current plans will supply at least two pulp and paper mills with water, was started late in November by Siems & Carlson, contractors, of Spokane. Work on the tunnel is to be conducted from both ends. Camps have been located at both ends of the shaft through the hill and clearings for the tunnel terminals have been completed.

Attention of the pulp and paper world centers on the Pacific Coast. PACIFIC PULP and PAPER INDUSTRY is covering adequately the entire Pacific Coast field.

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PULP-PAPER



UNITED STATES AGENTS

FOR

SPAULDING PULP & PAPER CO.

NEWBERG, OREGON

HIGH COLORED CLEAN STRONG
UNBLEACHED SULPHITE

Made from sound, fresh-cut pulpwood

AIR DRIED SHREDDED COMPACT BALES

WANTED:

Ground wood foreman for a modern ground wood mill that will be started in the near future. Located near large city on West Coast.

Address: Box No. 4, Pacific Pulp and Paper Industry, 71 Columbia Street, Seattle, Wash.

Wanted—

Paper mill engineer, member of A. S. M. E., with responsible experience in power problems, paper mill operation and engineering construction seeks connection in Western paper mill. Interested in investment opportunity with services. Recently completed expansion program in Ohio mill of eleven paper machines.

Address reply Box 6, Pacific Pulp & Paper Industry, 71 Columbia St., Seattle, Wash.

Dredges Fill In at Port Townsend

Good progress is reported on the work of filling in the site of the National Paper Products Company's proposed kraft mill at Port Townsend, Washington. A fill of 500,000 yards is being made on the 30-acre site. The material is being taken from the bay and a harbor depth is thus being created at the same time that will accommodate the largest of ocean-going vessels. A deep sea dock is being extended from the site about 200 feet from the main fill. A crew of carpenters was busy late in November decking over this dock and one corner of the fill, on which the first unit of construction, a warehouse, will be erected.

The dredge has been working three shifts a day. It has a capacity of 10,000 yards daily. The pile driving was virtually completed and general construction was in prospect for the near future.

Fibreboard Issues \$1,500,000 in Stock

Fibreboard Products Inc., is offering \$1,500,000 worth of six per cent preferred stock.

The purpose of the issue, as announced by Mr. J. D. Zellerbach, president of the Fibreboard company, will be used to supply working capital. In Mr. Zellerbach's letter to the bond house handling the issue he states:

"Fibreboard Products Inc. has acquired and will operate certain properties heretofore owned and operated by subsidiaries of the Zellerbach Corporation and by The Paraffine Companies, Inc. The Company is engaged in the manufacture of chemical and mechanical pulp, all grades of box board, straw and rag papers, and the fabrication of corrugated and solid fibre ship-

ping cases, folding and setup boxes, cartons, oyster and ice cream pails, paper tubes and cans, fibre wall board, egg case fillers and other paper products. The Company is the largest of its kind on the Pacific Coast and one of the largest in the United States. Its plants have a daily output of about 560 tons of box board. The Company employs approximately 2,500 people."

Drawing Kelso Paper Plans

The Kelso Paper company is now having plans and specifications drawn for its proposed plant, at Kelso, Wash., which will have a capacity of 36,000 pounds of finished paper per day. The Kelso Paper company owns an eight-acre site in the northern part of Kelso, formerly used by the Kelso Shingle company. To this former shingle mill property have been added two additional pieces of land, one purchased from the city of Kelso, and the other piece, 40 by 150 feet in size, bought from the Puget Sound Power & Light Company. The boiler plant, consisting of two boilers developing about 300 horsepower, and the warehouse of the shingle mill, a building 24 by 80 feet in size, will be utilized by the paper company. The other buildings are to be torn down. Earl Knight, head of the insurance department of the First National Bank of Kelso, is treasurer of the Kelso Paper company, and was also one of the owners of the former shingle company. He is offering the shingle machines and other equipment of the shingle plant for sale now.

Walter Clifford, now associated with the Crown Willamette Paper Company, is the president and general manager of the new concern.

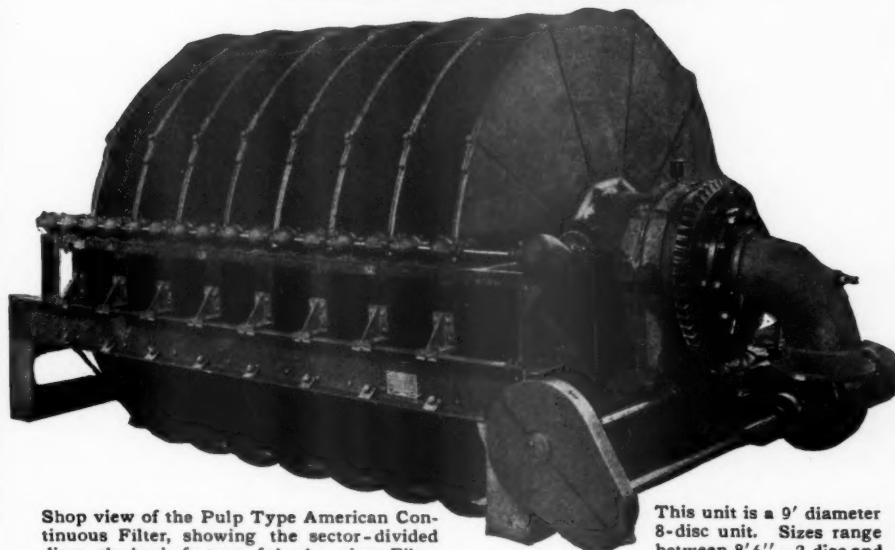
Sulphite Superintendent

with many years experience both in U. S. and Canadian mills on Bleached and Unbleached Stock, wants a position.

Answer to box No. 104, Pacific Pulp and Paper Industry, 71 Columbia St., Seattle, Wash.

American Continuous Filters

*-shipped largely
Assembled*



Shop view of the Pulp Type American Continuous Filter, showing the sector-divided discs—the basic feature of the American Filter

This unit is a 9' diameter 8-disc unit. Sizes range between 8' 6" - 2 disc and 9' 10 disc units.

IN so far as equipment is concerned, mill men don't like jig saw puzzles. The less assembly work, the better.

And so it is with American Filters.

Because of its simple sector-disc design—because of the one piece center shaft and gear mechanism—because of the plain rectangular frame and hopper

bottom that just drops into place—these are some of the reasons why the unit is shipped largely assembled.

The small amount of remaining assembly work can be easily followed from blue-prints.

In the many American equipped mills in the States and Canada, this feature has frequently been a subject of favorable comment.

How An Ohio Mill Saves Clay

By using an American Filter as save-all, handling white water from a soda-sulphite machine, clay requirements were cut down from 400 to 275 pounds per 2000 beater, effecting total savings of about \$50 in clay alone each day.

United Filters CORPORATION

Main Office and Laboratory: Hazleton, Pennsylvania

New York Chicago Salt Lake City Los Angeles
Export Office: 25 Broadway, New York Code Address: Unifilter, New York
Pacific Coast Office—Central Building, Los Angeles

When writing to UNITED FILTERS CORPORATION please mention PACIFIC PULP AND PAPER INDUSTRY

Fibreboard Staff Announced

President J. D. Zellerbach of Fibreboard Products, Inc., announced on December 10 the following personnel appointments of the new Pacific Coast organization which grew out of the merged interests of the Zellerbach Corporation and The Paraffine Companies, Inc.

FIBREBOARD PRODUCTS, INC. PERSONNEL

President.....	J. D. Zellerbach
Vice-President and Gen. Mgr.....	D. H. Patterson, Jr.
Vice-President.....	R. S. Shainwald
Vice-President.....	E. M. Mills
Secretary-Treasurer.....	T. N. Bland

DIRECTORS

M. R. Higgins	D. H. Patterson, Jr.
F. L. Lipman	H. H. Phleger
W. H. Lowe	R. S. Shainwald
E. M. Mills	I. Zellerbach
J. D. Zellerbach	

Assistant General Manager.....	R. H. Shainwald
General Operating Manager.....	N. M. Brisbois
Sales Mgr., Container & Carton Dept.....	E. J. Farina
Sales Mgr., Boxboard & Miscellaneous.....	W. H. Thomas
Comptroller.....	T. N. Bland
Cost Accountant.....	J. N. Berg

General Manager, Southern Division.....	B. F. Brown
General Supt., Montgomery St., S. F.....	M. J. McAuliffe
General Supt., Brannan St., S. F.....	W. W. Old
General Supt., Stockton, Cal.....	P. H. Keller
General Supt., South Gate, Cal.....	R. C. McCrystal

Resident Manager, Sumner, Wash.....	M. L. Patterson
Resident Manager, Port Angeles, Wash.....	C. H. Myers
Resident Manager, Vernon Division.....	H. M. Brown
Resident Manager, Antioch Division.....	E. W. Harter

Sales Manager, Northwestern Division.....	C. D. Altick
Sales Manager, Southern Division.....	W. Graham
Sales Manager, Southern Division.....	C. S. Rutherford

Fibreboard Products, Inc., which began doing business as a new company on November 1, 1927, and the parent companies, have been watched with great interest in the San Francisco stock market. The San Francisco Chronicle remarks, concerning the interest in Zellerbach that "the strength followed publication of anticipated earnings from Fibreboard Products, Inc., which it wholly owns jointly with Paraffine and which issued its sole public financing yesterday in the form of \$1,500,000 of preferred stock.

"In this summary it was stated that Fibreboard would earn its preferred dividend ten times. In other words, the company will earn approximately \$900,000. Deducting its preferred dividend, a balance of \$810,000 would be able for distribution to common stockholders, or, in other words, to Paraffine and Zellerbach.

"The company actually had assets, exclusive of this new financing of \$17,457,000 on September 30, with liabilities totaling only \$400,000, or net assets of \$17,057,000. Adding the \$1,500,000 in cash it will receive through this financing, its total assets will amount to nearly \$19,000,000 and its net assets to \$18,500,000."

May Begin Willapa Construction Soon

Construction work on the Willapa Pulp & Paper Mills near Raymond, Washington, is to be started not later than January 15, according to company officials. L. A. Deguerre, pulp and paper mill engineer of Wisconsin Rapids, Wisconsin, is to have plans completed shortly after the first of the year.

H. L. Sherrei, formerly general superintendent of the Columbia River Paper Mills, Vancouver, Washington, will be superintendent of the new plant.

The work of financing the project is progressing nicely, with about half of the amount already raised, it was said.

F. Enders of Bulkley-Dunton Company, New York, pulp and paper brokers, was in Portland last month for a conference with officers of the Willapa proposal.

Pulpwood Men Figure in Rescue

Three men connected with the Olympic peninsula pulp and paper industry today are giving thanks to the stoic bravery of an Indian, for their lives. The trio, Swan Dahlberg and Thorvald Berg, until recently co-operators of the Straits Pulpwood company on the peninsula, and Rudolph Saari, their office manager, with Mrs. Dahlberg, were saved from probable disaster in the icy waters of the Strait of Juan de Fuca, early in November, by Jimmy Hunter, Makah Indian. Hunter's home is at Neah Bay, farthest Northwest settlement in the United States.

The party left Neah Bay, base of the pulpwood company's operations, in a mail boat operated by Hunter, on a November morning. They were bound for Clallam Bay, nearest point connected to the outside world by highways, eighteen miles down the Strait.

Half a mile from the rocky coast, the mail craft was disabled by engine trouble, while a strong storm was developing. As great seas swept over the vessel, its navigator, Hunter, cast off two anchors, which failed to check the light boat's drift.

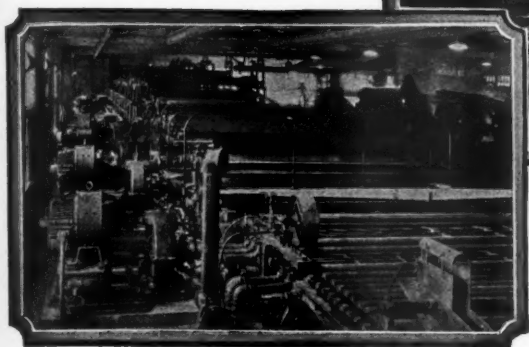
Realizing that the only hope lay in obtaining aid from a nearby coast guard patrol, the Indian launched his frail canoe from the mail boat's deck, into the turbulent waters, bidding his white friends farewell. Then, fighting through gale and waves, he paddled his comparatively flimsy craft toward shore. At times, huge mounds of water arose to shut the struggling man from the sight of those aboard the crippled vessel, making it appear to them that the canoe had been capsized.

Hunter made shore successfully and summoned a coast guard boat which effected a rescue.

For Sale—

Entire machinery and equipment modern four-digester Acid Tower System Sulphite Mill, daily capacity 120 tons, now operating. Will shut down January 1st, 1928. Mill located in New York State.

Detailed information and specifications will be furnished. Address Replies Box No. 106, Pacific Pulp & Paper Industry, 71 Columbia St., Seattle, Wash.



Again

Westinghouse Serves the Cascade Paper Co.

THE Cascade Paper Company of West Tacoma started in business in 1918 on a small scale. At that time they were manufacturing magazine stock from pulp purchased on the open market. The high quality of the paper they produced created such a demand in the past ten years, that, for the third time it has been necessary to enlarge the mill capacity.

The rapid growth and successful operation of this mill is the natural result of an intensive effort to produce a high grade of paper efficiently and economically.

In keeping with this progressive policy they again have depended upon Westinghouse engineering and Westinghouse apparatus—the Westinghouse Sectional Drive was chosen for the new machine.

This equipment, under typical conditions, provides a saving in maintenance alone of from 50 to 90 per cent. Added to this are reduced personal and fire hazards, accurate speed control and increased reliability—a combination of merits which make this the preferred drive for the modern paper mill.

Westinghouse Electric & Manufacturing Company
Seattle San Francisco Los Angeles

**Sectional
Drive**
for
Paper Machines

Westinghouse

X95561

When writing to WESTINGHOUSE ELEC. & MFG. CO. please mention PACIFIC PULP & PAPER INDUSTRY

Recent Paper and Pulp Patents

Compiled by NATHANIEL FRUCHT*

Patent No. 1,646,572, granted October 25, 1927, to Herman Burgdorf of Philadelphia, Pa., for PAPER BAG MACHINE.

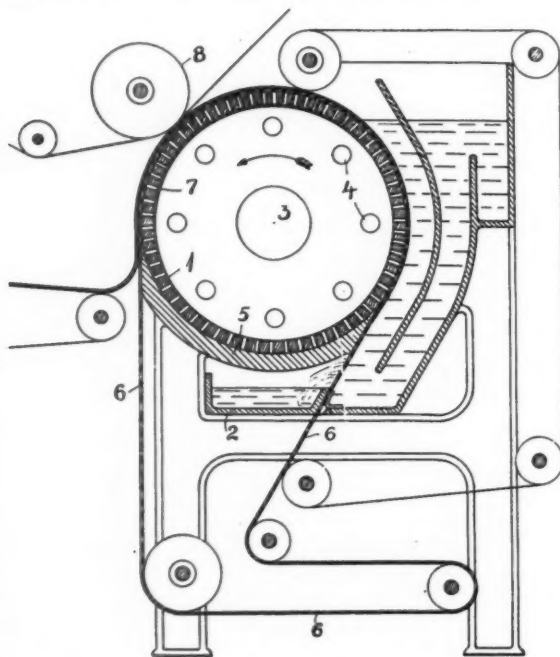
This invention relates to apparatus for forming paper tubes which can be converted into paper bags by forming a bottom at one end of each of the tubes, the tubes being formed of individual strips of paper sufficient for a single bag.

Patent No. 1,647,682, granted November 1, 1927, to Otto Andresen of Vindern, near Oslo, Norway, for MAGAZINE GRINDER.

The patent describes a magazine grinder located above the grindstone and equipped with continually moving feeding mechanism adjacent the grindstone for feeding the wood logs towards the grinding surface.

Patent No. 1,647,982, granted November 8, 1927, to Laurence Albeus Barry, of Bogota, and Lawrence Ambrose Barry, of Irvington, New Jersey, for PULP BEATER.

One of the objects of the invention is to improve the mount for the pulp beating roll which operates in a raceway and breaks up and finely comminutes the material from which the pulp is formed; another object is to break and cut up the material that collects and becomes wadded in the space between the ends of the roll and the adjacent side walls.



Pat. No. 1,650,100

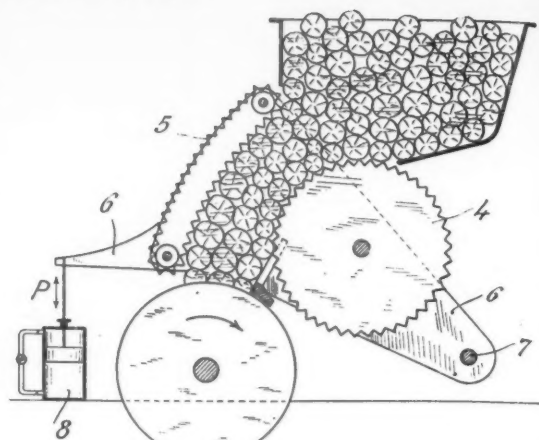
Patent No. 1,648,111, granted November 8, 1927, to Richard Collins, of Three Rivers, Quebec, Canada, for METHOD OF TREATING SULPHATE AND SODA PULP.

The invention provides means for thoroughly washing the pulp and at the same time recovering the liquor at as high density as possible, by utilizing the steam from the digester and the condensate from the heaters.

Patent No. 1,648,838, granted November 8, 1927, to Arthur E. Barnard and Robert C. Caswell of Newton, Mass., for PROCESS OF MANUFACTURING PAPER.

The object is to produce a paper having a very high bursting strength by beating the pulp in water rendered alkaline by the addition of ammonia.

Patent No. 1,648,229, granted November 8, 1927, to Ralph E. Heisel of Chillicothe, Ohio, for PAPER MAKING MACHINERY.



Pat. No. 1,647,682

This invention provides a mechanism for feeding the paper making stock upon the forming part of the machine that is easily adjusted locally and which permits ready moving of the breast roll without disassembling the device.

Patent No. 1,649,942, granted November 22, 1927, to James Brookes Beveridge of Richmond, Va., for METHOD OF PRODUCING SULPHITE PULP.

The invention lies in the use of a solution of magnesium acid sulphite containing varying amounts of alkali, sulphites and acid sulphites, such as sodium or ammonium, for digesting, thus producing a paper pulp from resinous woods equal to spruce sulphite pulp.

Patent No. 1,650,022, granted November 22, 1927, to Ernst Mahler of Neenah, and Henry A. Rothchild of Appleton, Wis., for PREPARING STUFF FOR PAPER MAKING.

The principal object of the invention is to prepare alum which is to be added to the stock for sizing, from one of the ingredients, such as china clay, which may be added to the paper for loading.

Patent No. 1,650,100, granted Nov. 22, 1927, to Julius Stephansen of Drammen, Norway, for DEWATERING APPARATUS FOR PULP.

The apparatus consists of a hollow suction drum covered with an endless felt or sieve, the interior of the drum being under suction pressure.

Dr. Benson Predicts Development

Pulp and paper manufacture and the electro-chemical industry are destined for a development on the Puget Sound area that will surpass the lumber business, according to Dr. H. K. Benson, head of the Department of Chemistry of the University of Washington.

Rain in the Puget Sound area was held to be one of the greatest assets by Dr. Benson. The rain means water power, and the pulp and paper industry and the electro-chemical industry both need large quantities of power at low cost.

"If it were not for our rainfall and our position at the western slope of the Cascades, we would not have the great forests here. Forests mean that we will enjoy the development of the pulp and paper industry, ultimately ranking with lumber, or possibly exceeding it, in importance.

"The development of our pulp and paper industries is due primarily to the rapid growth of our forest mantle. Nowhere else in the world is it possible to produce pulpwood in commercial quantities within a thirty-year period.

"Pulp and paper mills use eight to ten tons of chlorine a day and will be the largest users of the products of the chemical industries," Professor Benson said.

Business Vision

Portrayed Through

The Budget

THE Business Budget is a protective guide to future activities, resulting in more economy and efficiency in producing, buying, selling and in executive control.

A ship must necessarily have a rudder in order to be successfully navigated. Likewise, a business should have a guide to enable it to successfully navigate the waters of the business world. The Budget reflects business in terms of tomorrow based upon past and present experience.

The Budget Spells Progress!

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& COMPANY**

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Vancouver, B. C., Bellingham, Mt. Vernon,
Washington, D. C.



The Pioneer Paper Company at Los Angeles Is Shipping Paper Mulch to the Hawaiian Islands

Pioneer Shipping Mulch Paper to Islands

Stressing the benefits derived from its use in the growing of pineapples and other field crops in the Hawaiian Islands, a record shipment of approximately 4,000,000 pounds of mulch paper will leave the port of Los Angeles at the beginning of January, consigned to Honolulu and Kahuli, on the Island of Maui. The Pioneer Paper Company, of Los Angeles, is shipping the products.

This is more than twice the total amount of the material shipped at this time last year, according to J. H. Plunkett, general manager of the concern, and is separate from other orders which will go forward to the Philippines, Cuba, Porto Rico and the Orient later.

Increases Crop

Since adoption of the mulch a few years ago by the owners of sugar and pineapple plantations, it has come to be an integral part of the growing operations and has been largely instrumental in increasing the annual crop output, Mr. Plunkett declared. Sugar is the principal product of Hawaii, the value of the crop in terms of export to the mainland averaging between \$55,000,000 and \$75,000,000 annually.

Pineapples hold second place with an average annual export value of \$33,000,000, but the output is growing fast and may in time overtake sugar, federal statistics indicate. The islands produced 410,000,000 pounds of the fruit in 1926, as against 282,000,000 in 1924.

Conserves Moisture

The mulch owes its importance in the cultivation of the crops to the fact that the asphalt with which the paper is impregnated is highly repellant to all forms of insect life. The material, shipped in rolls, is spread over the fields, miles of the countryside being covered with it, and according to reports furnished by the growers, it not only prevents the inroads of insect pests, but also conserves the moisture in the soil, increasing the prospects for bumper crops.

Among other important features of Pioneer mulch, according to Mr. Plunkett, is its ability to prevent the growth of weeds, permitting all nourishment from the soil to be taken up by the plant, and the fact that it maintains an even soil temperature, which is vitally useful in the cultivation of Hawaiian crops.

Renew Option at Kelso

Option on the McLane site on the Cowlitz River in South Kelso for a paper mill project being promoted by Phillip Ablan and Fred G. Statham of the West Paper Company, of Seattle, was renewed during November for an additional 90-day period. The option is jointly held by the Seattle promoters and the Kelso Club, civic organization of Kelso. Each paid \$250 on the second renewal, which with \$500 previously paid, makes a total of \$1,000 now paid toward the agreed purchase price of \$10,000 for the site.

The property has on it a substantial frame building, built for a canning factory, but never used. The new option is for 90 days. A. D. Byram, George Norris and Frank Scott are the representatives of the Kelso Club who form a committee working on the project.

The group of Seattle men who are promoting the project are operating as the West Paper Company, but propose to use the name of Western Paper Mills when they have completed their organization and fully financed their project. Their announced intention is to build a \$250,000 first unit of a paper plant that will employ between 40 and 50 persons.

The option for the property, which is of between four and five acres, is to be taken up by February 15. No actual construction has been started.

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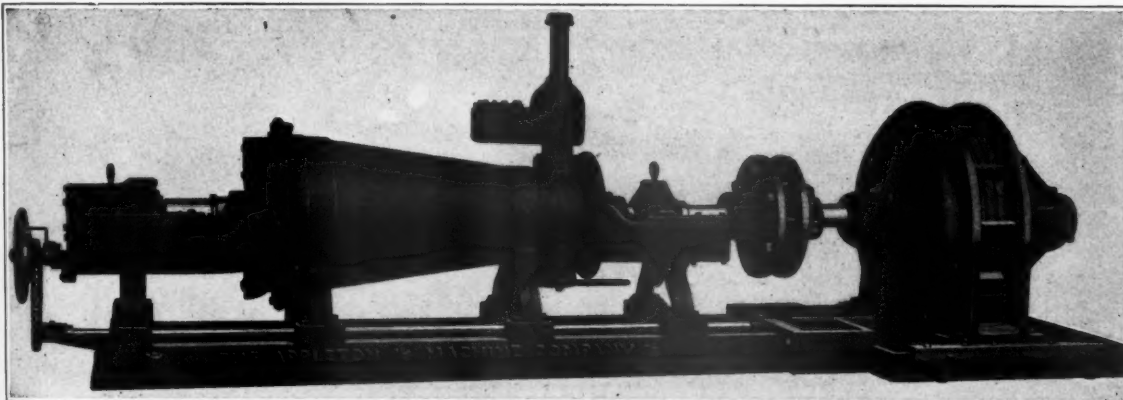


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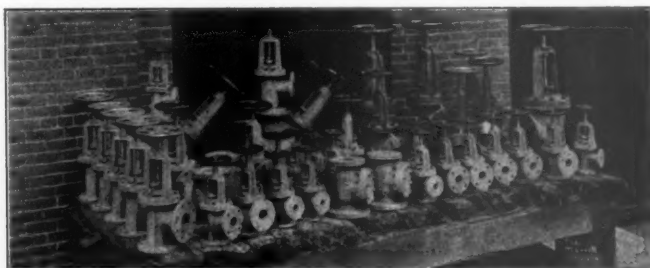
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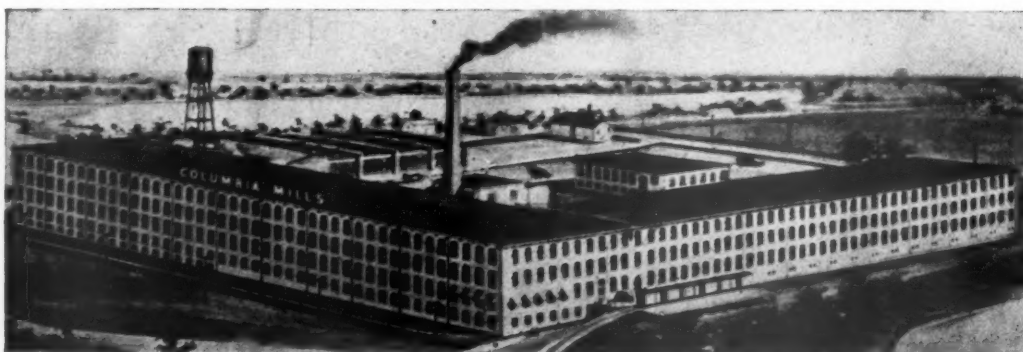
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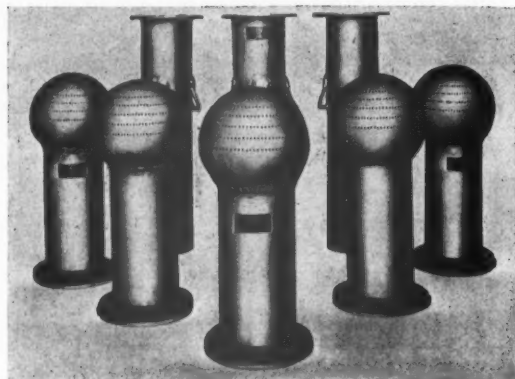
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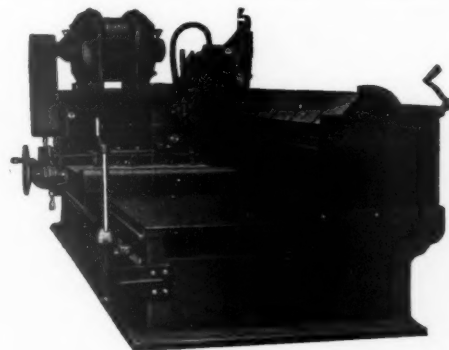
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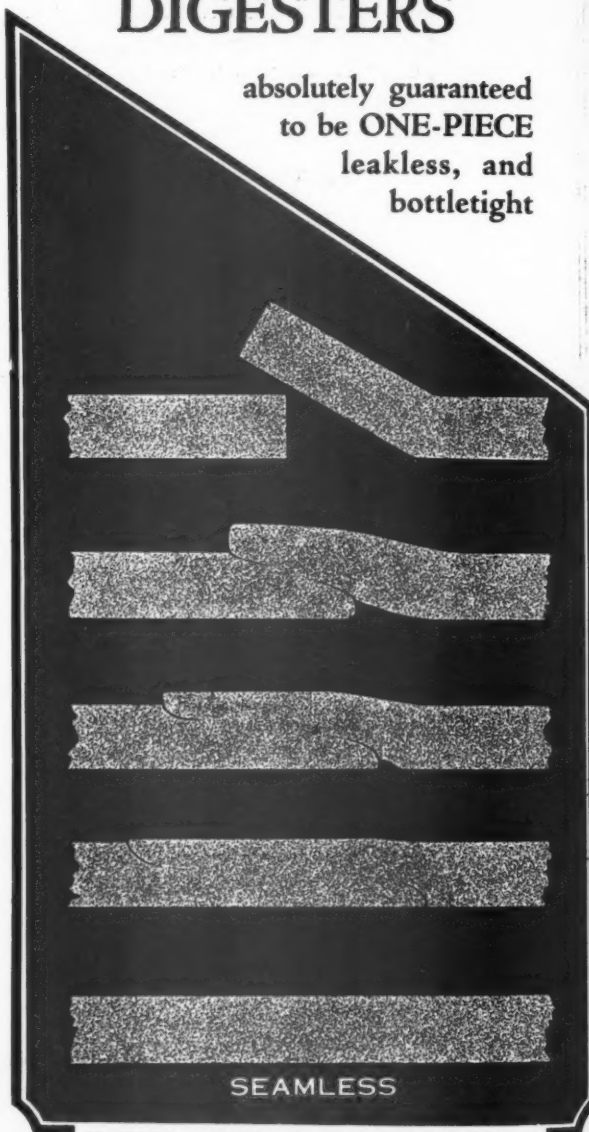
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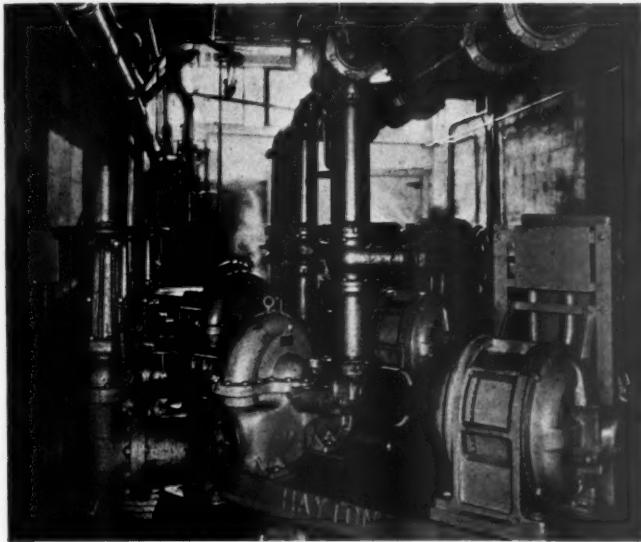


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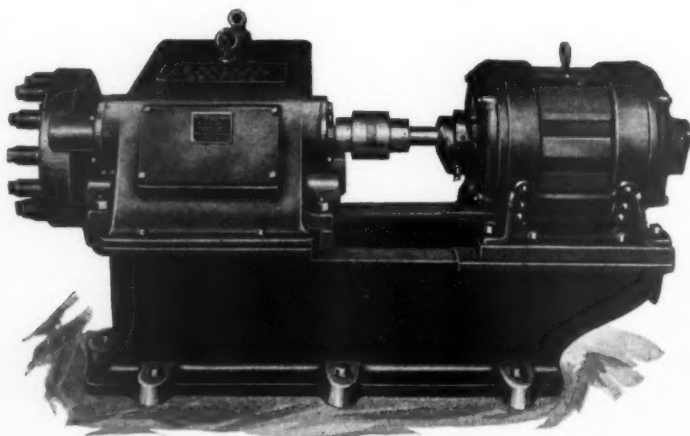
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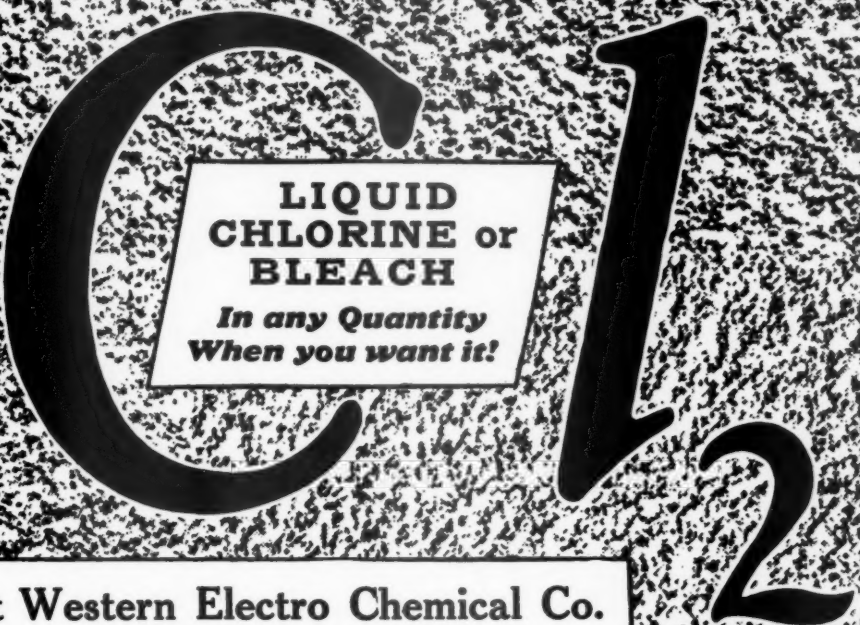
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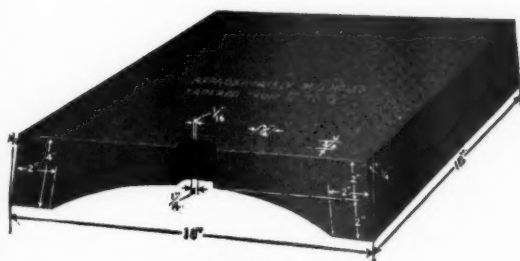


Figure 140-B
Acid Proof Drainer or Blow Pit Tile



Figure 135
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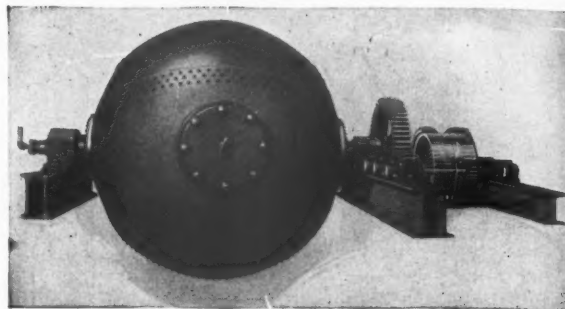
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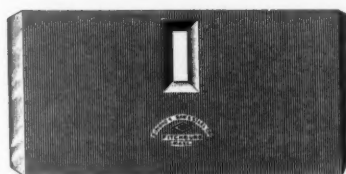


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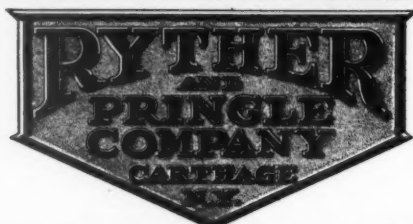
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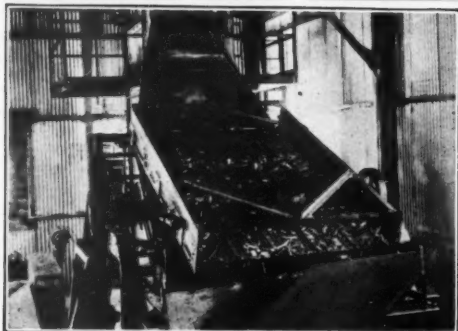
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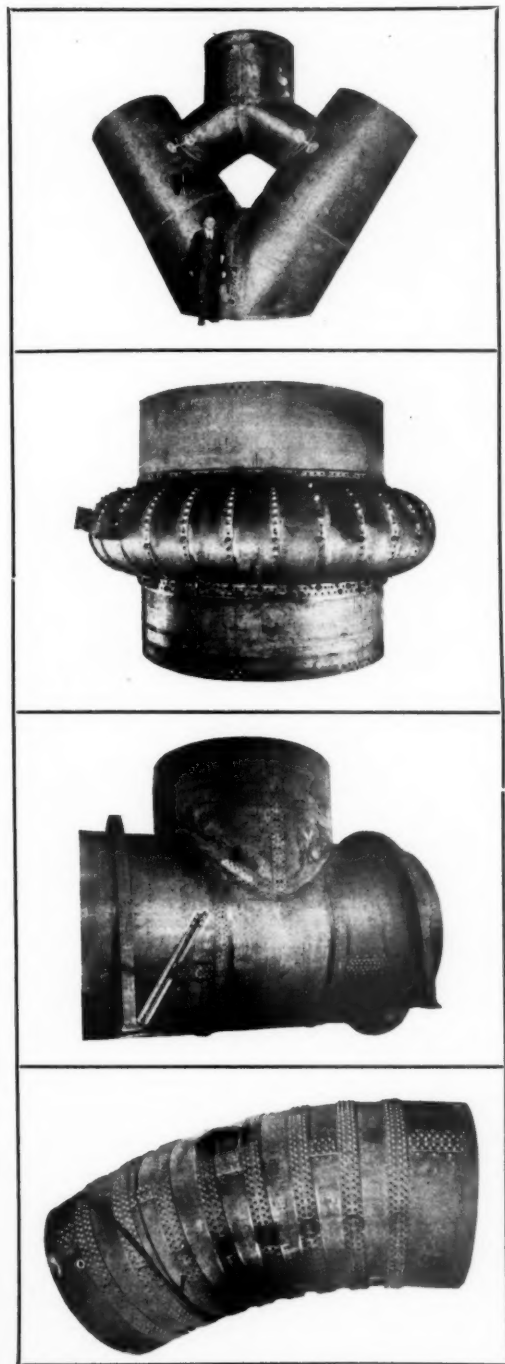
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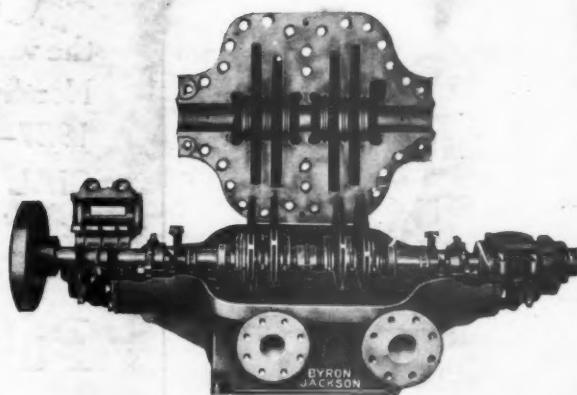
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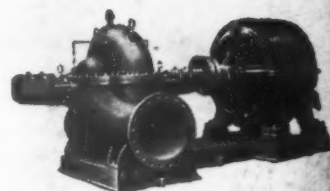
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